The Archive of Salmon Data at the Pacific Biological Station

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Rapport manuscrit canadien des sciences halieutiques et aquatiques

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AT THE
PACIFIC BIOLOGICAL STATION

by

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ABSTRACT

Simpson, K., J. Lettic, and G. Miller. 1985. The archive of salmon data at the Pacific Biological Station. Can. MS Rep. Fish. Aquat. Sci. 1808: 383 p.

This report is an indexed catalogue to an archive of unpublished and original information that was collected by salmon investigations at the Pacific Biological Station over the last 60 years. The records, which are organized in accordance with general archival principles, consist of files, field books, maps, photos, extensive scale collections and special material such as x-rays.

RESUME

Simpson, K., J. Lettic, and G. Miller. 1985. The archive of salmon data at the Pacific Biological Station. Can. MS Rep. Fish. Aquat. Sci. 1808: 383 p.

Le présent rapport est un répertoire indexé d'archives de données inédites et originales recueillies au cours d'études sur le saumon menées à la Station de biologie du Pacifique au cours des 60 dernières années. L'information, présentée selon les principes généraux d'archives, consiste en dossiers, carnets de terrain, cartes, photographies, importantes collections d'écailles et de matériel spécial comme des radiographies.

INTRODUCTION

An Archive of Salmon Data was created at the Pacific Biological Station in 1978 (Simpson, Carmichael and Groot 1978). It was created to provide a secure place to store unpublished data and original research material, some of which was being lost, and to improve access to previously unavailable data. Many additions have been made to the Archives since 1978 and a new cataloguing project was begun in early 1983. This report presents the results. It includes all salmon accessions up to the autumn of 1983 and supplants the 1978 publication.

DESCRIPTION AND METHODS

ARCHIVE ACCESSIONS

The Archive material that is described in this report was collected by salmon investigations at the Pacific Biological Station over the past 60 years. Most of the accessions are papers such as notes, correspondence, tables, forms, field books and diaries. There are also photographs, x-rays, microfilms, recovered disc tags and large collections of scales. We excluded publications, biological samples (other than scales) and data that was in machine readable form. Some material from non-salmon investigations has been stored in the Archives but it has not been catalogued.

The documents were catalogued and stored in accordance with general archival practices. In particular, we did not extensively edit, rearrange or merge Archive accessions. Records that were deposited with us by an individual were usually kept together as a Record Group. Major segments of an accession were each called a Record Group if they were distinguishable as coming from different sources. Consequently, the records in a Group are related by source or activity or, at least, by donor.

Each Record Group was assigned a double alphabetical code (AA,AB,... AZ,BA,BB,...BZ, etc.). The codes merely reflect the order in which Groups were documented. Some codes are missing in the reported series: some were assigned to records from non-salmon investigations and others became redundant when Record Groups were merged.

The next step was to describe and uniquely label each record in the Group. The label shows the Record Group code, the number of the box in that Group and the number of the record within the box. For example, the record number

AC/12/18

locates the record as being the eighteenth record in the twelfth box of Record Group AC. Each record was described using the author's titles and by examining the contents (the authors titles were often too cryptic or inaccurate to be useful as the sole description). We tried to identify the species and life stage of the study organism, the location and years of the study and the aspect or subject of the record (e.g. length frequencies).

The records were filed in labelled cardboard boxes (30 cm wide x 25 cm high x 37.5 cm deep).

THE CATALOGUE AND INDEX

Each Record Group was indexed by assigning key terms to it that describe the Group in each of five categories: species, lifestage, Statistical Area, specificlocation and the aspect or nature of the data. The key terms from all Record Groups are compiled for each category in five indexes to the catalogue (pages 7 to 37). The indexes indicate the Record Groups where each key term appears. There may be an explanation in brackets of how the term was used. Unlike information in parentheses,these bracketed explanations are not part of the key term.

In the catalogue itself (pages 37 to 383), each Record Group begins with an introduction describing the Group and where it came from. There may also be a table of contents guide for large Groups where a number of sub-groups were identified. The lists of key terms for the Group follow the introduction.

The core documentation in the cataloguing of each Record Group follows the key term lists. Called the Register, it is a list of the record descriptions with their associated record numbers. Special terms and abbreviations that were used in the Register are defined in Table 1.

USING THE ARCHIVES

You should identify Record Groups that may have pertinent records by using the index and by scanning the introduction and index terms for each Group. You can then search the Registers of these Groups and note the record numbers of the files you wish to see.

Although this catalogue describes most of the old files from FRB salmon investigations, we are still recieving files, particularly of more recent material. Up-to-date catalogues will soon be available in a computer data base which will permit computer searches. Further information can be obtained from the PBS Library.

This publication is available on magnetic tape in the PBS Computer Center. The magnetic tape is called ARCHIV and its reel number is 24534. Each Record Group file is called ARCHIVExx. MEM, where 'xx' is the alphabetic

Table 1. Definitions of terms and abbreviations that are used in the Registers.

Term	Description
ADFG	Alaska Department of Fish and Game
All Areas	All the numbered Statistical Areas in B.C. (1-29)
All species	All five salmon species in North America and may sometimes include steelhead trout
ARV	Adipose and right ventral fins have been removed to serve as a mark
CPUE	Catch per unit effort
CWT	Coded wire tag(ging)
ECVI	East coast of Vancouver Island
FRB(C)	Fisheries Research Board (of Canada)
FRI	Fisheries Research Institute, University of Washington
H/S	High Seas (the pelagic North Pacific Ocean)
INPFC	International North Pacific Fisheries Commission
IPSFC	International Pacific Salmon Fisheries Commission
Mixed Areas	Several (but not all) B.C. Statistical Areas
Mixed species	Several salmon species
MS	Manuscript
Misc.	Miscellaneous
MR	Mark recovery
OFC	Oregon Fisheries Commission
Para.	Parasitology
PBS	Pacific Biological Station
POG	Pacific Oceanographic Group
Spp.	Species
SpringCo	An acronym for the Spring and Coho Investigation at PBS (it was directed by D. Milne and H. Godfrey)
SSA	Salmon Stock Assessment Investigation at PBS (it was directed by T. Bilton and M. Shepard)
SSM	Skeena Salmon Management Committee
Stn.	Station
TBT	Two boat trawl(ing)
T.F.	Test fishing (to estimate relative abundances of returning salmon)
TWG	Technical Working Group
USFWS	United States Fish and Wildlife Service
WCVI	West coast of Vancouver Island
WDF	Washington Department of Fisheries

code for the Record Group (e.g., AC). All Record Groups can be obtained by asking for ARCHIVE*.MEM. This introduction to the catalogue is in ARCINTRO.MEM and the indexes are in ARCINDEX.MEM.

PRECAUTIONS

It is important to realize that the record descriptions are often incomplete and sometimes will not even be accurate. The material in a Record Group is usually heterogenous within and between records and, since most of it was intended for their own use, authors often labelled the material inadequately. We did not have time to intensively examine and research each record - there are about 200,000 pages of papers and probably more than 2 million scales in the Archive of Salmon Data. Often our descriptions were derived not just from the contents of the record but from publications (particularly the Annual Reports of the Pacific Biological Station) and by questioning the authors or other staff. Sometimes parts of the descriptions are no more than "educated guesses".

This means that the information you desire may be in records that appear from their descriptions to be only distantly related to what you want. For example, if you were interested in the sex composition of sockeye catches in the Skeena R. gillnet fishery, it would be worth looking at a record that is described as "Lengths and weights from Prince Rupert landings, 1955". Sex is usually recorded when adult body sizes are measured and the landings are likely to contain gillnet catches. You may also find pertinent data in records adjoining the records you have selected, even though their descriptions do not indicate this.

The index was prepared from the Register and should be used with the above precautions in mind. For example, a Record Group with the species key words of "sockeye" and "pink" has data on these species but may also have a small proportion of data on other unidentified species. Secondly, since it was groups of records that were indexed, individual records cannot be cross-indexed. For example, a Record Group having the key words of "sockeye", "Hooknose Cr." and "fry" may not have a single record with data on sockeye fry from Hooknose Creek. Finally, as with any key word system, a "shotgun" approach is required in selecting what key words to search for. This is particularly true for the aspect key words. For example, every Record Group with limnological records was not given the "limnological data" key term - some might have been given other key terms, such as "Freshwater ecology" or "Water anlaysis (Chemical)". Another example is locations within watersheds - all data from the Morice system cannot be found in Record Groups having the key term "Morice system" because other Record Groups would have been given more specific terms (e.g. Nanika R.) or more general terms (e.g. Bulkley R. system).

Finally, please note that the set of files on a topic may be dispersed through several Record Groups. This is because we largely adhered to the archival practice of preserving the integrity of accessions. Information from a study was often dispersed within an investigator's files and between investigators.

ACCESS TO THE ARCHIVES

For further information regarding the Archives or to obtain Archive records, contact:

Library
Pacific Biological Station
Department of Fisheries and Oceans
Nanaimo, B.C. Canada
V9R 5K6
Phone: (604) 756-7071

Loans of records will be facilitated if you specify their record numbers.

ACKNOWLEDGEMENTS

Mrs. S. D'Orsay, Mr. J. LeBlanc and Mrs. C. Pucher all helped in preparing this Archive. Mrs. D'Orsay and Mr. LeBlanc helped describe and store the records and Mrs. Pucher modified programs for the computer data base.

REFERENCES

FAO. 1976. Thesaurus of terms for aquatic sciences and fisheries. FAO Fish. Circ. No. 344: 242 p.

Simpson, K.S., J.R. Carmichael, and C. Groot. 1978. Index to the Pacific Biological Station archives. Fish. Mar. Serv. MS Rep. 1443: 95 p.

INDEX

1. SPECIES

Sockeye . . . . AA, AC-AM, AO-AS, AX-AY, BA-BD, BF-BG, BK-BM, BP, BU-BV, BX-BY, CA-CB, CD-CE, CG-CK, CM-CN, CP

Pink . . . . AA, AC, AE-AO, AQ, AS-AT, AX-AZ, BB, BC, BD, BF-BG, BK-BM, BP, BU-BV, CA-CD, CG-CK, CN, CP

Chum . . . . AA-AC, AE-AI, AK-AO, AQ, AT, AW-BA, BC-BD, BF-BG, BI, BK-BM, BP, BU-BV, BY, CA-CD, CG-CK, CN, CP

Coho . . . . AA-AC, AE-AM, AO, AQ, AT, AW-AX, AY, BA, BC-BI, BK-BM, BP, BU, BW, CA-CB, CG, CI-CK, CO-CP

Chinook . . . . AB-AC, AE-AL, AO, AQ, AT, AW-AX, BC-BI, BK, BM, BP, BU, BW, CA-CB, CG, CI-CK, CN-CP

Masu . . . . AA, AC, AH, CN

Kokanee . . . . AA, AC, AG-AJ, AP-AR, AY, BI, CE, CN

Steelhead . . . . AA, AC, AF-AH, AK-AL, AO, AQ, AX-AY, BA, BC-BD, BK-BM, CA-CB, CJ-CK

Salmon [Used when species of salmon are unknown.] . . . . AC, AE, AH-AM, AS, AW, BA, BD, BF, BY, CA, CI-CJ, CO-CP

Fish [Fish other than those listed above. Freshwater and marine fish are distinguished by Aspect key words.] . . . . AA, AC-AE, AG-AI, AK, AQ, AS-AT, AW-AY, BA, BC-BD, BG, K-BM, BO, BU, CB, CD, CF-CG, CJ-CK, CM-CN, CP

Plankton . . . . AG-AH, AO-AT, AW-AX, BA, BK, BO, BY, CN

Other [Used for plants, shellfish, birds, mammals, etc. See the Aspect key words.] . . . . AG-AH, AQ-AT, AX, BA, BC-BD, BM, BO, BU, CG, CN

2. LIFE STAGE

Egg . . . . AB, AE, AG-AI, AO, AQ, AX-AY, BC-BD, BF-BG, CN

Alevin . . . . AB, AE, AG-AH, AO, AQ, AT, AX, BD, BF, CN

Fry [Non-specific term usually used for free-swimming salmon up to two months old but may include salmon up to one year old. Its use overlaps with the "juvenile" key word.] . . . . AA-AC, AE, AG-AI, AO-AT, AW, AX, BA, BC-BD, BF, BI, BK-BL, BP, BU-BV, CK, CM-CN

Smolt . . . . AA-AC, AE, AG-AH, AL, AO-AS, AW-AY, BC-BE, BH, BK-BL, BP, BU, CE, CK, CN

Juvenile [A general term for free-swimming salmon up to about two months of ocean life.] . . . . AA-AE, AG-AI, AK-AL, AO-AQ, AT, AW-AY, BA, BK-BL, BP, BU-BV, CM-CP

Ocean fish [Used for all high seas salmon and coastal coho and chinook. Also used for coastal catches of other salmon if there is doubt about whether they are juvenile or mature.] . . . . AA, AC, AE-AH, AJ-AM, AO, AQ, AT, AX, BA, BC-BE, BG-BI, BK, BM, BP, BW, BY, CA, CG, CI-CK, CN-CP

Mature [Salmon on their homing migration through the coastal zone to the spawning grounds.]. . AA-AH, AJ-AO, AQ-AS, AX-AZ, BB-BD, BF-BG, BI-BM, BP, BU-BV, BX-BY, CA-CD, CG-CK, CN-CP

Age unspecified or non-applicable [Used for organisms other than fish or fish of unknown maturity. This includes most Archives data on resident freshwater and marine fish.] . . . . AA, AC-AE, AG-AH, AQ, AS-AT, AW-AX, BA, BC-BD, BI, BK-BL, BO, CB, CD-CG, CK-CN

3. STATISTICAL AREAS (Figs. 1 and 2)

Note: (1)Record Groups which have material from all the numbered Statistical Areas in B.C. are listed in the "All B.C. Areas" category but are not shown in the listings for each Statistical Area. Users interested in particular Areas should also examine the "All B.C. Areas" Record Groups.

(2)Record Groups having records from a sub-area of Area 4 (Skeena R.) or 29 (Fraser R.) are included in the list for the whole Area as well as in the sub-area list.

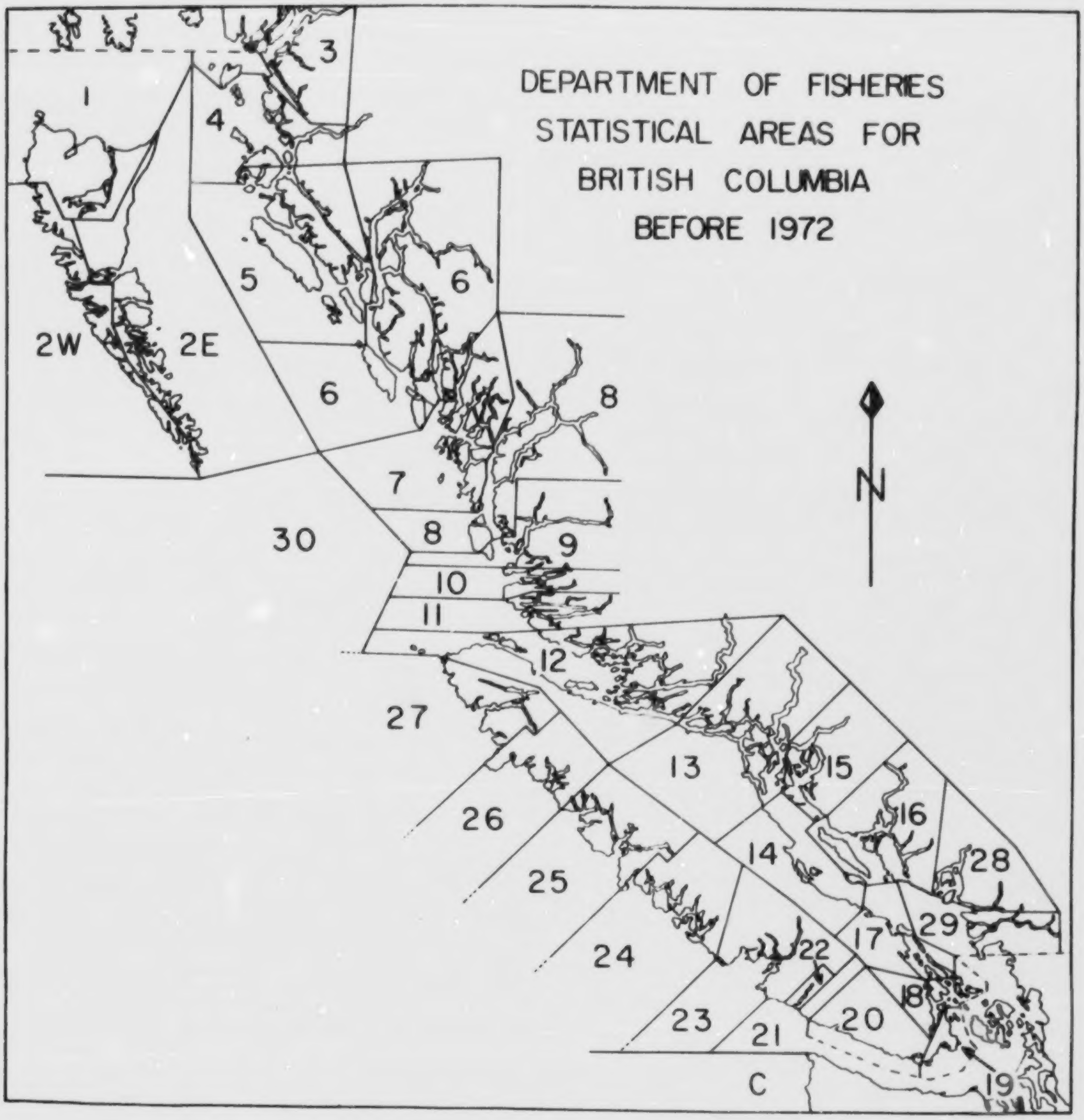

Figure 1. Statistical Areas on the coast of British Columbia before 1972. Most Archives records come from this period.

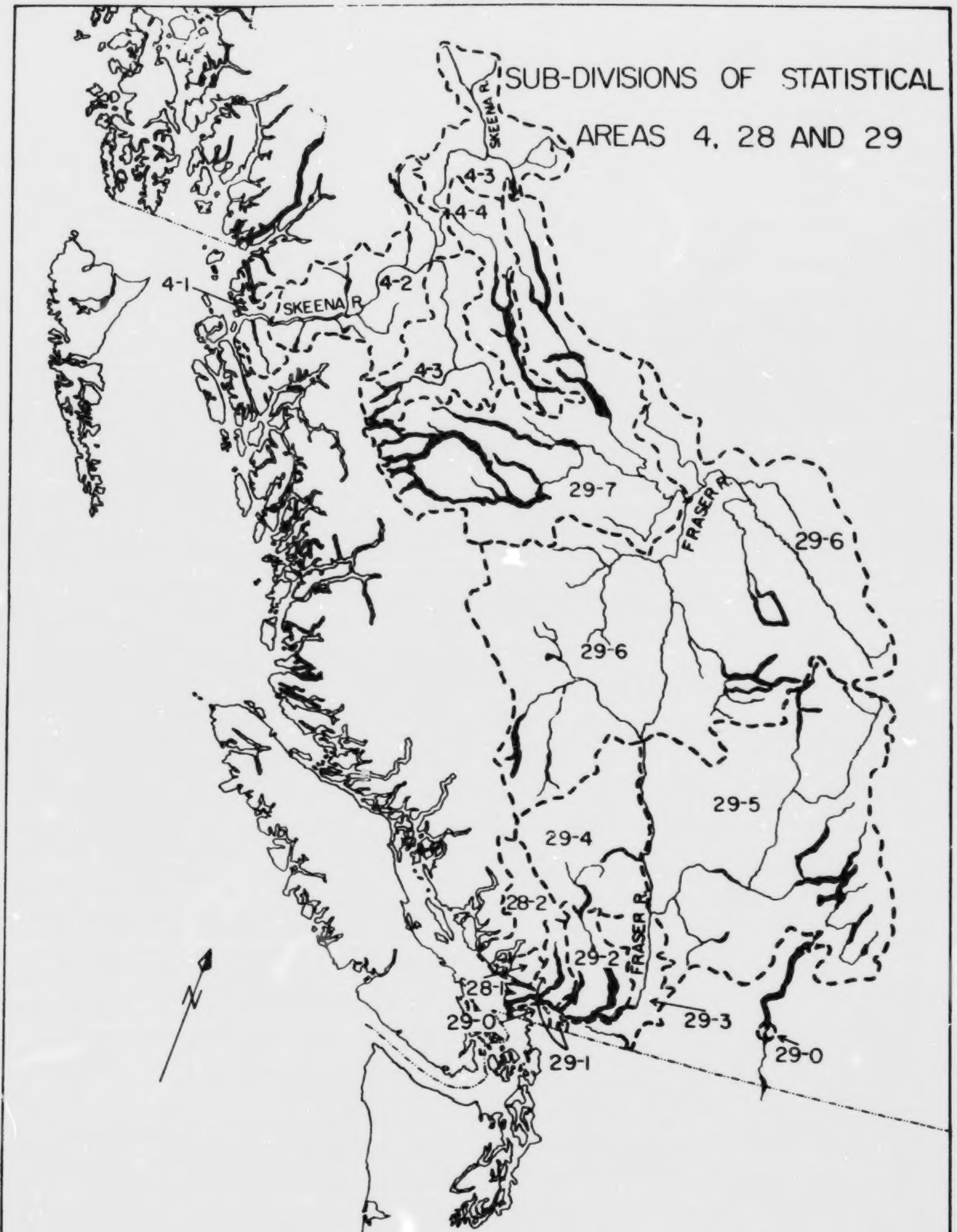

Fig. 2. Sub-divisions of Areas 4, 28 and 29. Another inland B.C. Area, Alsek-Taku-Stikine, is not shown. This Area lies east of the Alaskan panhandle (north of Area 3).

(3)Areas 50 to 54 are general areas created for Archives reference. They are not used if the Record Group has records from all B.C. Areas.

Yukon River	AA, AC, AE, BK
Alsek-Taku-Stikine	AA, AC, AE, AO, BK
All B.C. Areas	AA, AC, AF, AH, AL, AX, BB, BE-BH, BK, BM, BP, BV-BW, CO-CP
50 (Georgia Str.)	AT, AZ-BA, BY, CC, CI, CK
51 (Vancouver Is.)	AS, BY, CI
52-1 (E. coast of Vancouver Is.)	CK
52-2 (W. coast of Vancouver Is.)	AK, BC, CH-CI, CK, CN
54 (Queen Charlotte Islands)	AK, CH, CK

1 (North Queen Charlottes)	AE, AY, BC-BD, BU, CK, CN
2E (East Queen Charlottes)	BD, CK
2W (West Queen Charlottes)	AG, AK, CK
3 (Nass R.)	AE, AG, AO, AQ, BC-BD, CG-CH, CJ-CK, CN
4 (Skeena R.)	AD-AE, AG, AI-AK, AM, AO-AS, BC-BD, BU, BX-BY, CB, CD-CK, CM-CN
4-1 (Lower Skeena)	AG, AO, AQ, BC, CB, CG, CJ-CK, CN
4-2 (Terrace)	AD-AE, AG, AI-AJ, AO, AQ-AS, BC-BD, BU, CB, CD-CG, CJ-CK, CN
4-3 (Upper Skeena-Bulkley)	AG, AJ, AO, AQ, AS, BC-BD, CE, CG, CK
4-4 (Babine)	AE, AG, AI-AJ, AM, AO-AS, BC-BD, BU, BX-BY, CB, CD-CG, CJ-CK, CM-CN
5 (Grenville-Principe)	AG, AQ, CG-CH, CK, CN
6 (Butedale)	AG, AY, CH, CK
7 (Bella Bella)	AG, AJ, AM, AS, BA, CH, CK
8 (Bella Coola)	AE, AG, AJ, AM, AS, BL, BU, CA, CE, CH-CK
9 (Rivers In.)	AE, AG, AI-AK, AM, AO, AR, CD, CH-CK, CN
10 (Smith In.)	AE, AO, CH-CK
11 (Seymour In.)	AA, AC, AO
12 (Alert Bay)	AI-AK, AN, AZ, BU, CC, CK
13 (Quathiaski)	AK, AN, AW, AZ, BU, CC, CK
14 (Comox)	AB, AI, AS-AT, AW, AY-BA, BC-BD, BU, BY, CC, CK
15 (Toba In.)	AZ, CC, CK
16 (Pender Harbour)	AZ, CC, CI, CK
17 (Nanaimo)	AQ, AT, AW, BA, BC-BD, BY, CC, CI, CK
18 (Cowichan)	AI, AN, AW, AY, BA, BI, CI, CK
19 (Victoria)	AK, AZ, CA, CI, CK
20 (Sooke)	AJ-AK, AN, AY-AZ, BD, CI, CK
21-22 (Nitinat)	BO, CI-CK
23 (Barkley Sd.)	AI-AJ, AR-AS, AW, BA, BC, BY, CI, CK
24 (Clayoquot)	AE, AI, CH, CK
25 (Nootka)	CD, CK
26 (Kyuquot)	CI, CK
27 (Quatsino)	CI, CK
28-1 (North Vancouver)	AI, AW, AZ,

28-2 (Squamish)	AN, AW, AZ-BA, CI
29 (Fraser R.)	AE, AG, AI-AK, AM-AN, AQ, AS, AW, AY-BA, BC, CH-CK, CN
29-0 (Non-Fraser)	AY, BC
29-1 (Lower Fraser)	AI-AJ, AW, CK
29-2 (Mission)	AI, CI
29-3 (Chilliwack)	AI, AQ, AY, BC
29-4 (Lillooet-Seton)	AI, AY
29-5 (Thompson R.)	AE, AJ, AM, AY, BA, BC
29-6 (Quesnel-Upper Fraser)	AJ-AK, AM, AS
29-7 (Nechako)	AG, AI-AK, AM, AQ, BC

4. LOCATIONS

Note: (1)Locations are listed alphabetically within each of the following regions around the north Pacific basin: (a)High Seas, (b)Asia, (c)Alaska, (d)Yukon-NWT and locations in B.C. that are not in numbered Statistical Areas, (e)General B.C. areas, (f)B.C. Statistical Areas (in numerical order), (g)Washington-Oregon-California, and (h)Miscellaneous Locations.

(2)Some local names are cross-referenced to the gazetted or more common name. Gazetted names are always given precedence.

(3)The term "system", such as "Stellako system", refers to the water body, its tributaries and all waters upstream from it.

a. High Seas

High Seas	AA, AC, AE, AH, AJ-AM, AO, AX, BA, BK, BO-BP, BY-CA, CD, CJ-CK, CN, CP
Station 'P'	AA, AC, AL, BA, BO, BY, CK

b. Asia

Abashiri R. (Japan)	AA
Aburatsubo In. (Japan)	BA
Amur R. (USSR)	AA, CN
Asia	AH, AL, BK
Blizna L. (USSR)	CK
Blyinyaya R. (USSR)	AA
Bol'shaya R. (USSR)	AA
Dal'nyaya R. (USSR)	AA
Hokkaido Is. (Japan)	AA, AH, AL
Icha R. (USSR)	AA
Ishikari R. (Japan)	AA, CK
Japan	AC, AH

Kamchatka (USSR) . . . . . AA, AC, AL, CN
Kamchatka R. (USSR) . . . . AA, AC, AE
Karymai Spring (USSR)
  -see Karymiskii (Karymai?) Spring (USSR)
Karymiskii (Karymai?) Spring (USSR) AA
Kukhtui (Kukhtuy?) R. (USSR) AA
Kukhtuy R. (USSR)
  -see Kukhtui (Kukhtuy?) R. (USSR)
Kuril Islands (USSR) . . . AL
L. Dalnee (USSR) . . . . . AA, AC
Nishibetsu R. (Japan) . . . AA, CK
Nono R. (Japan) . . . . . . AA
Ozernaya R. (USSR) . . . . AA
Sakhalin Is. (USSR) . . . . AL
Sea of Japan . . . . AK, CJ
Sea of Okhotsk . . . . AA, AC, AL
Shari R. (Japan) . . . . . AA
Shibetsu R. (Japan) . . . . AA
Shizunai R. (Japan) . . . . CK
Siniri R. (Japan) . . . . . AA
Tatar R. (USSR) . . . . . . AA
Tokachi R. (Japan) . . . . AA, AC, AH, CK
Tokoro R. (Japan) . . . . . AA
Uebetsu R. (Japan) . . . . AA, AC, CK
Ukolka R. (USSR)
  -see Utoka (Ukolka?) R. (USSR)
USSR . . . . AA, AC, CJ-CK
Utoka (Ukolka?) R. (USSR) . AA
Yubetsu R. (Japan) . . . . AA
Ztorofu R. (Japan) . . . . AA

c. Alaska

Adak Is. (Alaska) . . . . . AC, CJ-CK
Alaska . . . . AA, AC, AE-AH, AL, AQ, AS, AX, BM, BP, BV, CJ-CK, CO
Alaska Penin. (Alaska) . . AA, AC
Aleutian Islands (Alaska) . AA
Attu Is. (Alaska) . . . . . CJ-CK
Auke Cr. (Alaska) . . . . . AA
Bare L. (Alaska) . . . . . AH
Bering Sea . . . . AA, AC, CJ-CK
Bering Str. . . . . AA
Branch R. (Alaska) . . . . AA, AC
Bristol Bay (Alaska) . . . AA, AC, AG-AH, AK, CK
Canyon Is. (in Taku R., Alaska) AA
Cape Fairweather (Alaska) . AX
Cape Spencer (Alaska) . . . AA
Cape Thompson (Alaska) . . AS
Central Alaska . . . . . . AA

Chignik R. (Alaska) . . . . AC
Chiniak R. (Alaska) . . . . AC
Cook In. (Alaska) . . . . . AC, CK
Copper R. (Alaska) . . . . AA, AC
Egegik R. (Alaska) . . . . AC, CK
Eshamy R. (Alaska) . . . . AA, AC
Fish Cr. (Alaska) . . . . . CK
Fish R. (Alaska) . . . . . AC
Frazer R. (Alaska) . . . . AC
Haines (Alaska) . . . . . . AA
Karluk L. (Alaska) . . . . AA
Karluk R. (Alaska) . . . . AA, AC, CK
Karluk system (Alaska) . . AH
Kenai R. (Alaska) . . . . . AC
Ketchikan . . . . AC, AG
Kiska Is. (Alaska) . . . . AC
Kitoi Bay (Alaska) . . . . AX
Kodiak Is. (Alaska) . . . . AA, AC, AG, CK
Kuskokwim R. (Alaska) . . . AA
Kvichak R. (Alaska) . . . . AA, AC, CK
Little Port Walter (Alaska) AX
Nagashik R. (Alaska) . . . AC
Naknek R. (Alaska) . . . . AC, CK
Portlock Banks (Alaska) . . AC
Prince William Sd. (Alaska) AC
Red R. (Alaska) . . . . . . AC
S.E. Alaska . . . . AA, AC, AG-AH, AL, AS, BH, BK, BP
Sashin Cr. (Alaska) . . . . AX
Seward Penin. (Alaska). . . AK
Teller (Alaska) . . . . . . AA
Ugashik R. (Alaska) . . . . AC, CK
Unalakleet R. (Alaska) . . AA
Uyak Bay (Alaska) . . . . . AA
Western Alaska . . . . . . AA
Wood R. (Alaska) . . . . . AC, CK
Yakutat (Alaska) . . . . . AC, BP
Yukon R. (Alaska) . . . . . AA, AK

d. Yukon, NWT and locations in B.C. that are not in numbered Statistical Areas

Aishihik L. (Yukon) . . . . AA
Argenta (Kootenay system) . AY
British Columbia . . . . . AH, CO
Great Slave L. (NWT) . . . AC
Hay River (NWT) . . . . . . AA, AC
Kootenay L. (Kootenay system) AA, AC, AR-AS
Meadow Cr. (Kootenay system) AC
Nakina R. (Alsek-Taku-Stikine) AA
Nelson . . . . AY
Stikine R. (Alaska and Alsek-Taku-Stikine) AA, AC, AO

Tahltan L. (Alsek-Taku-Stikine) AA
Yukon . . . . AA, AC
Yukon system . . . . AE, BK
Duncan Dam (Columbia system) AO

e. General B.C. Areas

E. coast of Vancouver Is. (51-1) AC, BF-BG, BK, BP, CK
Georgia Str. (50) . . . . AA, AC, AH, AT, AZ-BA, BE, BG, BK, BP, BY, CC, CI, CK
Graham (North) Is. (54-1) . . . BD, BG
Gulf (San Juan) Islands (17-18) AA, AC, BK
Hecate Str. (53) . . . . AA, BG
Johnstone Str. (12-13) . . . . . AC, AH, AL, AN, AX, AZ, BF, CC, CH, CJ-CK
Juan de Fuca Str. (19-20) . . . AA, AC, AK, AZ, BE, BG, BK, BP, CI, CP
Lower Mainland (29-0 to 29-3) . BP
North Is. (54-1)
   -see Graham (North) Is. (54-1)
Queen Charlotte Islands (54) . . AC, AK, BD, BF-BG, BP, CH, CK, CP
Queen Charlotte Sd. (52) . . . . AA
San Juan Islands (17-18)
   -see Gulf (San Juan) Islands (17-18)
Vancouver Is. (51) . . . . AC, AI, AS, BD, BF, BK, BP, BY, CI
W. coast of Vancouver Is. (51-2) AA, AC, AK, AX, BC, BE, BG-BH, BK, BP, CH-CI, CK, CN, CP

f. B.C. Statistical Areas (Figs. 1 and 2)

Area 1: Dixon Entrance (1) . . . . AK
   Langara Is. (1) . . . . . . BG
   Masset In. (1) . . . . . . AY, BD
   McClinton Cr. (1) . . . . . AE, AX-AY, BC-BD, BF
   Naden Hr. (1) . . . . BD

Area 2E: Horseshoe Grounds (Hecate Str., 2E) AA
   Reef Is. (2E) . . . . AA
   Skidegate (2E) . . . . CK
   Tlell R. (2E) . . . . BD

Area 2W: Hippa Is. (2W) . . . . AG

Area 3: Aiyansh (3) . . . . AA, AQ
   Arnston Hr. (3) . . . . . . AC
   Damdochax L. (3) . . . . . BC, CG
   Dundas Is. (3) . . . . . . AC, AX

	Haystack Is. (3)	AG
	Meziadin R. (3)	AA
	Meziadin system (3)	AO, CG
	Nass R (3)	AA, AQ, BD, BF, BP, CG-CH, CJ-CK
	Nass system (3)	AC, AE, AG, AO, AQ, BK
	Portland In. (3)	AQ
	Prince of Wales Is. (3) -see Wales (Prince of Wales) Is. (3)	
	Steamer Pass. (3)	CG, CK
	Tracy Bay (3)	CK
	Union Bay (3)	AC, CK
	Wales (Prince of Wales) Is. (3)	BD
Area 4:	Prince Rupert	AA, AC, AG, AO, BB-BE, BG-BH, BP, BW-BX, CD, CG, CI, CN
	Skeena R. (4)	AA, AC, AE, AG, AJ, AO, AQ, BD, BF-BG, BP, CB, CG-CH, CJ-CK, CN
	Skeena system (4)	AA, AC, AE, AG-AI, AK-AL, AO, AQ, AS, BC, BK
4-1:	Chatham Sd. (4-1)	AC, AG, AK, AO, AQ, BC, CK
	Khyex R. (4-1)	AO
	McLean Pt. (4-1)	AQ
	Metlakatla (4-1)	AC
	Port Essington (4-1)	AQ
	Rachael Islands (4-1)	AA
	Raspberry Bluff (4-1)	AG
	Smith Is. (4-1)	BC, CK
	Tyee Bank (4-1)	AG
4-2:	Alastair L. (4-2)	AA, AG, AQ, BC
	Alastair system (4-2)	AC, AJ, CD, CG
	Clear Cr. (4-2)	AA
	Copper R. (4-2) -see Zymoetz (Copper) R. (4-2)	
	Exchamsiks R. (4-2)	AO
	Exstew R. (4-2)	AO
	Falls Cr. (4-2)	AA, AJ
	Gitnadoix R. (4-2)	AA, AC, AG, AO, AQ, BC, CD
	Granite Cr. (4-2)	AA, AE, AH-AI
	Hazelton	AO,
	Herman Cr. (4-2)	AX
	Hotsprings Cr. (4-2)	AD
	Kalum L. (4-2) -see Kitsumkalum (Kalum) L. (4-2)	
	Kalum R. (4-2) -see Kitsumkalum (Kalum) R. (4-2)	
	Kalum system (4-2) -see Kitsumkalum (Kalum) system (4-2)	
	Kasiks R. (4-2)	AO
	Kispiox R. (4-2)	AA, AO, AQ, AS, BC, CN
	Kispiox system (4-2)	AA, AC, AG, AJ, BC, CG
	Kitsumkalum (Kalum) L. (4-2)	AG, AL
	Kitsumkalum (Kalum) R. (4-2)	AG, AQ

	Kitsumkalum (Kalum) system (4-2)	AA, AC, AJ, BC, CG
	Kitwanga L (4-2)	AG, AL
	Kitwanga R. (4-2)	AA, AO, AQ, CN
	Kitwanga system (4-2)	AA, AC, AG, AJ, AO, BC, CG, CK
	Kleanza Cr. (4-2)	AH, AQ
	Kwinitsa R. (4-2)	AA, AQ
	Lakelse L. (4-2)	AC-AD, AG-AI, AL, AO, AQ, BC-BD, CF
	Lakelse R. (4-2)	AA, AC-AD, AH, AO, AQ, BC-BD, BF, CE-CF, CJ, CN
	Lakelse system (4-2)	AA, AC-AE, AG-AH, AO, AR-AS, BC, CB, CE, CG
	McDonell L. (4-2)	AA, AG
	Schulbuckhand (Scully) Cr. (4-2)	AA, AC, AE, AH, AJ, AO, AQ, BD, BF, BU, CN
	Scully Cr. (4-2) -see Schulbuckhand (Scully) Cr. (4-2)	
	Shames Slough (4-2)	AO, CN
	Sockeye (Eliza) Cr. (4-2)	AH
	Stephens Cr. (4-2)	AJ
	Stephens L. system (4-2)	AA, AG, AL, AQ
	Swan L. (4-2)	AA, AG, AL, AQ, BC
	Terrace	AG-AH, AO,
	Williams Cr. (4-2)	AA, AC, AG-AH, AJ, AQ, BC-BD, BF, CN
	Zymagotitz R. (4-2)	AO
	Zymoetz (Copper) R. (4-2)	AA, AQ, BC
4-3:	Asitka L. (4-3)	AA, AC
	Azuklotz L. (4-3)	AG, BC, CG
	Bear L. (4-3)	AA, AC, AG-AH, AJ, AL, CE, CG, CK
	Bear system (4-3)	AC, AQ, BC
	Bear R. (4-3)	AC
	Bulkley R. (4-3)	AA, AC, AG, AO, AS, BC
	Bulkley system (4-3)	AG
	Glen Vowell (4-3)	AA
	Hagwilget Canyon (4-3)	AG, BC
	Johanson L. (4-3)	AA, AC, AG, AJ, AQ, BC, CG
	Kluatantan Ls. (4-3)	AG, BC
	Kluayaz L. (4-3)	AG, BC, CG
	Morice L. (4-3)	AA, AC, AG-AH, AO, AQ, BC
	Morice R. (4-3)	AA, AC, AO
	Morice system (4-3)	AC, BC
	Moricetown Falls (4-3)	AA, AC, AG, BC-BD, BG, CG, CK
	Motase L. (4-3)	AG, AL, AQ, CG
	Nanika R. (4-3)	AA, AC, AJ, AO, CG
	Sicintine L. (4-3)	AA, AJ
	Sicintine R. (4-3)	AA
	Slamgeesh system (4-3)	AA, AJ, BC, CG
	Smithers	AO
	Sustut L. (4-3)	AA, AC, AG, AJ, AQ, BC, CG, CK
	Telkwa R. (4-3)	AO

4-4:	15-Mile Cr. (4-4) -see Pinkut (15-Mile) Cr. (4-4)	
	4-Mile Cr. (4-4)	AA, AC, AJ, AO, AQ, CG
	5-Mile Cr. (4-4)	AO, CN
	6-Mile Cr. (4-4) -see Gullwing (6-Mile) Cr. (4-4)	
	9-Mile Cr. (4-4)	AA, AJ, AO-AP, CN
	Babine L. (4-4)	AA, AC, AG-AH, AL, AO-AS, BC, BY, CE-CF, CM-CN
	Babine R. (4-4)	AA, AG, AR, BD, CN
	Babine R. (Lower) (4-4)	AA, AC, AE, AJ, AO, AQ, AS, BC, BU, CB, CD-CE, CN, CP
	Babine R. (Upper) (4-4)	AA, AC, AJ, AO, AS, CE, CG, CN
	Babine system (4-4)	AA, AC, AE, AG-AJ, AM, AO, AQ, AS, BC, BU, CE, CG, CJ-CK, CN
	Basils Pt. (4-4)	AC
	Black Pt. (4-4)	AP
	Fort Babine (4-4)	AG, AO, AQ, CE
	Fulton R. (4-4)	AA, AC, AJ, AO-AR, BF, BP, BX, CG, CN
	Granisle (4-4)	AS
	Grizzly Cr. (4-4) -see Shass (Grizzly) Cr. (4-4)	
	Gullwing (6-Mile) Cr. (4-4)	AA, AE, AG, AO
	Gullwing Is. (4-4)	AP
	Hagan Arm (4-4)	AC
	Halifax Narrows (4-4)	AO-AP
	Kisgegas (4-4)	AC, AG, CN, CP
	Morrison L. (4-4)	AG-AI, AQ, BC, CF
	Morrison R. (4-4)	AA, AC, AE, AJ, AO, BU, CG, CN
	Nilkitkwa L. (4-4)	AA, AG, AO-AR, CE, CN
	Old Fort (4-4)	AP
	Onerka L. (4-4)	AA, AG, AJ
	Pierre Cr. (4-4)	AA, AC, AE, AJ, AO-AP, CG, CN
	Pinkut (15-Mile) Cr. (4-4)	AA, AC, AE, AJ, AO, AQ, CG, CN
	Port Arthur (4-4)	AP, CN
	Shass (Grizzly) Cr. (4-4)	AA, AJ, AO, CG, CN
	Sockeye Cr. (4-4)	AA, AC, AO, CN
	Sockeye Pt. (4-4)	AP
	Sunnyside (4-4)	AP
	Tachek Cr. (4-4)	AA, AC, AJ, AO, CN
	Tahlo Cr. (4-4)	AA, AC, AJ
	Topley Landing (4-4)	AG
	Twain (Twin) Cr. (4-4)	AA, AO, CG, CN
	Twin Cr. (4-4) -see Twain (Twin) Cr. (4-4)	
Area 5:	Banks Is. (5)	AA, AC, CH
	Bare Bay (5)	AA
	Browning Entrance (5)	AQ
	Cridge Lagoon (5)	AA
	Deer Pt. (5)	AA
	Endhill Bay (5)	CK

	Endhill Cr. (5)	AC
	Gale Bay (5)	AA
	Grenville Chan. (5)	AC
	Lowe In. (5)	AA, CG
	Lowe system (5)	AC
	Mikado Bay (5)	AA, CK
	Mink Trap Bay (5)	AA, AC, CG, CK
	Ogden Chan. (5)	AC, AQ, CH
	Pitt Is. (5)	AA
	Principe Chan. (5)	AA, AC, CK
Area 6:	Butedale (6)	AA, AY, BF
	Whale Chan. (6)	AA, AC, BV
	Wright Sd. (6)	AC, CH
Area 7:	Bella Bella (7)	AC, AX, BA, BF
	Goose Is. Grounds (7)	AA
	Howyet Cr. (7)	AX
	Johnson Chan. (7)	BV
	Klemtu (7)	AC, AS, AX
	Lama Pass. (7)	BV
	Lewall In. (7)	AX
	Mathieson Chan. (7)	AC, CH
	Milbanke Sd. (7)	AC
	Nalau Pass. (7)	AA, AX
	Seaforth Chan. (7)	BV
	Spiller Chan. (7)	AC
	Troup Pass. (7)	BV
Area 8:	Atnarko R. (8)	AC, AH, AS, AX, CK
	Bella Coola (8)	AC, AM, BF, CK
	Bella Coola R. (8)	AX
	Bella Coola system (8)	AX
	Burke Chan. (8)	AC, AX, CJ-CK
	Croyden Bay (8)	AX
	Dean Chan. (8)	AA, AC, AX, BV, CJ-CK
	Evans In. (8)	AC
	Fisher Chan. (8)	AX, BV
	Fitz Hugh Sd. (8)	AX, BV
	Fougner Bay (8)	AX
	Hooknose Cr. (8)	AA, AC, AG-AH, AL, AX, BF, BL, CK
	Koeye R. (8)	AA, AX
	Kwatna (Quatna) R. (8)	AX
	Matthew Is. (8)	AX
	Menzies Pt. (8)	AX
	Namu (8)	AA, AC, AM, AX, BE, BG-BH, BP, BW, CA, CK
	Necleetsconnay R. (8)	AX
	Nooseseck R. (8)	AX
	Nootsum (Nootum) R. (8)	AX
	Nootum R. (8) -see Nootsum (Nootum) R. (8)	
	Ocean Falls (8)	AX

	Port John (8)	AA, AC, AE, AH, AM, AX, CE, CJ-CK
	Port John L. (8)	AA, AG-AH, AX, BL
	Quatna R. (8) -see Kwatna (Quatna) R. (8)	
	Salloompt R. (8) -see Salloomt (Salloompt) R. (8)	
	Salloomt (Salloompt) R. (8)	AX
	Tallheo Pt. (8)	CK
	Tally Cr. (8)	AA, AG, AX, BF, BL
	Whiskey Bay (8)	AX
	Windy Bay (8)	AA
Area 9:	Goose Bay (9)	AC
	Indian R. (9) -see Inziana (Indian) R. (9)	
	Inziana (Indian) R. (9)	AC
	Owikeno system (9)	AA, AC, AJ, AR, CJ-CK
	Rivers In. (9)	AA, AC, AE, AH-AL, AO, AX, BG, CD, CH-CK
	Wannock R. (9)	AA, CJ-CK
Area 10:	Smith In. (10)	AA, AC, AE, AL, AO, AX, CH-CK
	Boswell In. (10)	AC
Area 11:	Cape Scott (11)	AA
	Seymour In. (11)	AC, AO
Area 12:	Adam R. (12)	CK
	Ahta R. (Waterfall Cr.) (12)	AA
	Alert Bay (12)	AC
	Blackfish Sd. (12)	AC
	Broken Islands (12?)	AC
	Bull Harbour (12)	BG
	Cluxewe R. (12)	CK
	Glendale R. (12)	AA, AC, AH, AZ, CK
	Growler Cove (12)	AC
	Kakweiken R. (12)	CK
	Keogh R. (12)	CK
	Klinaklini R. (12)	CK
	Knight In. (12)	AC, AZ
	Malcolm Is. (12)	AC
	Nimpkish R. (12)	AC
	Nimpkish system (12)	AI, CK
	Quatse R. (12)	AA
	Queen Charlotte Str. (12)	AH, AZ, BH
	Tsitika R. (12)	CK
	Wakeman R. (12)	CK
	Waterfall Cr. (12) -see Ahta R. (Waterfall Cr.) (12)	

Area 13: Apple R. (13) . . . . CK
Campbell R. (13) . . . . . . AA, AW-AX, BF
Campbell River . . . . BA
Homathko R. (13) . . . . . . CK
Orford R. (13) . . . . CK
Phillips Arm (13) . . . . . . AZ, CK
Phillips R. (13) . . . . . . CK
Quatam R. (13) . . . . CK
Salmon R. (13) . . . . BU
Southgate R. (13) . . . . . . CK

Area 14: Big Qualicum R. (14)
  -see Qualicum (Big Qualicum) R. (14)
Cameron L. (14) . . . . AA
Chef (Cook) Cr. (14) . . . . AA, AX, BF, BP
Cook Cr. (14)
  -see Chef (Cook) Cr. (14)
Deep Bay (14) . . . . AC
Fanny Bay (14) . . . . AA
Horne L. (14) . . . . BF
Lambert Chan. (14) . . . . . BG
Little Qualicum R. (14) . . . AA
Lymn Cr. (14) . . . . AA, BA, BF, CK
MCNaughton Cr. (14) . . . . . BF
Mistaken Is. (14) . . . . . . AC
Morrison Cr. (14) . . . . . . AX, BF
Nile Cr. (14) . . . . AH, BF-BG
Northwest Bay (14) . . . . . AA, AC
Oyster R. (14) . . . . AC, AW
Puntledge R. (14) . . . . . . AA, AI, BF, BK
Qualicum (Big Qualicum) R. (14) AA-AC, AI, AS-AT, BD, BF, BK, BP
Qualicum Beach . . . . AY, BC
Rosewall Cr. (14) . . . . . . AA-AC, AI, BA, BP, BU, BY
Union Bay (14) . . . . AA
Wilfred Cr. (14) . . . . . . BF

Area 15: Brem R. (15) . . . . CK
Toba R. (15) . . . . CK

Area 16: Deserted R. (16) . . . . . . AX
Gibsons Landing (16) . . . . AC
Jervis In. (16) . . . . AC
Lasqueti Is. (16) . . . . . . AC
Pender Harbour (16) CI
Sabine Chan. (16) . . . . . . AC
Sakinaw L. (16) . . . . AA
Skwawka R. (16) . . . . AX, AZ, CK

Area 17: Barsby L. (17) . . . . AA, AC
Brannen L. (17) . . . . AA
Departure Bay (17) . . . . . AT, AX, BP, BY, CK
Gabriola Is. (17) . . . . . . AA
Keighly Cr. (17) . . . . . . BP

	Ladysmith	BP
	Nanaimo	AC, AL, BA-BB, BD, BG, BP, CI, CK
	Nanaimo Ls. (17)	BA
	Nanaimo R. (17)	AT-AW, BY
	Nanaimo system (17)	AL
	Nanoose Cr. (17)	BP
	Northumberland Chan. (17)	BP
	PBS (17)	AC, AQ-AR, BA, BC-BD, BY
	Pipers Lagoon (17)	AC
	Porlier Pass (17)	AA, AC
	Quennell L. (17)	AA
	Silva Bay (17)	AC
	Stuart Chan. (17)	AC
	Thatcher Cr. (17)	CI
	Yellow Pt. (17)	AA
Area 18:	Beadnell Cr. (18)	AY
	Cowichan Bay (18)	AA, AC, AW, BI, BP, CK
	Cowichan L. (18)	AA, AH, AY, BI
	Cowichan R. (18)	AC, AY, BF, BP
	Cowichan system (18)	AI, AY, BI, CI
	Goldstream R. (18)	BP
	Mill Bay (18)	BP
	Oliver Cr. (18)	AY
	Saanich In. (18)	BA, BI, BP
	Satellite Chan. (18)	AC
	Shaw Cr. (18)	BP
Area 19:	Albert Head (19)	AA
	Victoria	AA, AC, BE, BH, BP, BW, CA
Area 20:	Ogden Pt. (20)	CI
	Port San Juan (20)	AA, AC
	Sooke	AA, AC, AN, BD, BG, CI, CK, CP
	Veitch Cr. (20)	AY
Area 21:	Swiftsure Bank (21)	BG, BO
Area 22:	Nitinat L. (22)	AA, AC, CI-CJ
Area 23:	Alberni In. (23)	AA, AC, AW-AX, BY
	Barkley Sd. (23)	AC, BC, BW, CK
	Carnation Cr. (23)	AS, BA, BY
	China Cr. (23)	AC, CK
	Great Central L. (23)	AA, AC, AR, BA, BY
	Henderson L. (23)	BC
	Hohm Is. (23)	AX
	Imperial Eagle Chan. (23)	CK
	Kildonan L. (23)	AA
	Nahmint L. (23)	AA
	Port Alberni	AC, AX, BA, BH
	Robertson Cr. (23)	AA, AC, AI, AR, BP
	Somass R. (23)	AA, AX
	Sproat R. (23)	CK

Area	Location	References
	Stamp Falls (23)	AA, CK
	Stamp R. (23)	AA, AC
Area 24:	Ahousat (24)	AC
	Clayoquot Sd. (24)	AC, CH
	Kennedy L. (24)	AE, AI
	Ucluelet	AA, AC, BG, CI, CP
Area 25:	Esperanza In. (25)	CD
	Nootka Sd. (25)	AC, CD, CK
Area 26:	Kyuquot Chan. (26)	AA
	Kyuquot Sd. (26)	AC, BG, CI, CK
Area 27:	Amazon R. (27) -see Marble (Amazon) R. (27)	
	Coal Harbour (27)	AA, AC
	Klaskish R. (27)	CK
	Marble (Amazon) R. (27)	BF
	Quatsino Sd. (27)	AC, CI, CK, CP
	Winter Harbour (27)	AC, BG, CK
Area 28:		
28-1:	Burrard In. (28-1)	AW
	Capilano R. (28-1)	AI, BF
	Horseshoe Bay (28-1)	CI
	Maplewood (28-1?)	AW
28-2:	Cheakamus R. (28-2)	AZ
	Howe Sd. (28-2)	AC
	Squamish R. (28-2)	AW-AX, BA
Area 29:	Fraser R. (29)	AA, AC, AJ, AW-AX, BA, BE, BG, BP, CH-CK, CN
	Fraser system (29)	AA, AC, AG-AJ, AL-AM, AX-AZ, BF, BK, BP
	Point Grey (29)	AA, AC, BG, CI, CP
	Roberts Bank (29)	AW, BA
	Sturgeon Bank (29)	AW
	Tsawwassen	AS
	Vancouver	AA, AC, AX, BE, BG-BH, BP, BW, CI
29-0:	Beaver L. (29-0)	AY
	Kelowna	AY
	Okanagon L. (29-0)	BC
	Okanagon R. (29-0)	AA
	Semiahmoo (White Rock) Bay (29-0)	AA
	Stanley Park (29-0)	AY
	Summerland	AY, BC
	White Rock Bay (29-0) -see Semiahmoo (White Rock) Bay (29-0)	

29-1:	Alouette R. (29-1)	AA
	Canoe Pass. (29-1)	AA
	Kanaka Cr. (29-1)	AA
	New Westminster	AI
	Pitt L. (29-1)	AI
	Pitt R. (29-1)	AA, AL
	Steveston	AA, BW, CK
	Widgeon Slough (29-1)	AA
	Woodward Is. (29-1)	AW
29-2:	Big Silver Cr. (29-2)	AA
	Harrison R. (29-2)	AA, AC, AL, BG
	Harrison system (29-2)	AI, AL
	Mission	BK
	Nicomen Slough (29-2)	CI
	Weaver Cr. (29-2)	AA
29-3:	Cultus L. (29-3)	AA, AC, AI, AL, AQ, AY, BC
	Smith Falls Cr. (29-3)	AY
	Sumas R. (29-3)	AQ
	Sweltzer Cr. (29-3)	AA
	Vedder R. (29-3)	AA
29-4:	Birkenhead R. (29-4)	AA, AC
	Gates R. (29-4)	AA
	Lillooet system (29-4)	AL
	Pemberton	AI
	Portage Cr. (29-4)	AA
	Seton L. (29-4)	AA
	Seton system (29-4)	AL
29-5:	Adams R. (29-5)	AA, AC, AH, AJ, AM, BG
	Barriere R. (29-5)	AA
	Eagle R. (29-5)	AE, AY, BC
	Fawn L. (29-5)	AA
	Lloyd (Lloyd's) Cr. (29-5)	AY
	Lloyd's Cr. (29-5) -see Lloyd (Lloyd's) Cr. (29-5)	
	Loon L. (29-5)	AA
	Malakwa (29-5)	AY
	Moran (29-5)	BA
	North Thompson R. (29-5)	AA
	North Thompson system (29-5)	AL
	Paul L. (29-5)	AY
	Pavilion Cr. (29-5)	AA
	Pennask Cr. (29-5)	AY
	Raft R. (29-5)	AA, AC
	Scotch Cr. (29-5)	AA
	Seymour R. (29-5)	AA
	Shuswap L. (29-5)	AC, BC
	Shuswap L. system (29-5)	AA
	Shuswap R. (Middle) (29-5)	AA
	South Thompson R. (Little R. section) (29-5)	AA
	South Thompson system (29-5)	AL
	Taft (29-5)	AY, BC

29-6: Bowron R. (29-6) . . . . . . AA, AL
Chilko L. (29-6) . . . . . . AS
Chilko R. (29-6) . . . . . . AC, AH
Chilko system (29-6) . . . AA, AL
Horsefly R. (29-6) . . . . . AA, AC, AJ-AK, AM
Little Horsefly R. (29-6) . AA
Quesnel R. (29-6) . . . . . AA
Quesnel system (29-6) . . . AA, AL
Taseko system (29-6) . . . AA

29-7: Fort St. James . . . . AG
Gluskie Cr. (29-7) . . . . . AA
Kynock Cr. (29-7)
-see O'Ne-ell (Kynoch) Cr. (29-7)
Middle R. (29-7) . . . . . . AA, AC, AJ-AK, AM
Nadina R. (29-7) . . . . . . AA, AC
Narrows Cr. (29-7) . . . . . AA, AJ
O'Ne-ell (Kynoch) Cr. (29-7) AA
Prince George . . . . AA, BP
Stellako R. (29-7) . . . . . AA, AC
Stellako system (29-7) . . AL
Stuart L. (29-7) . . . . . . AA, AG, AI, AQ
Stuart system (29-7) . . . AA, AL
Tachie R. (29-7) . . . . . . AA
Takla Cr. (29-7) . . . . . . AJ
Takla L. (29-7) . . . . AM, BC

g. Washington-Oregon-California

Area C (off Washington State) AF
Bonneville (Oregon) . . . . CK
California . . . . BE, BH, BK
Cape Flattery (Wash.) . . . BK
Columbia R. . . . . AA, AC, AG-AH, BG, BP, BV, CJ-CK, CN
Columbia system . . . . . . AL, BE, BG-BH, BK, BP
Grays Harbour (Wash.) . . . BP
Hennan L. (California) . . AA
Hot Cr. (California) . . . BU
L. Washington . . . . AC
La Conner (Wash.) . . . . . AA
Minter Cr. (Wash.) . . . . AX
Oregon . . . . BE, BH, BK, CO
Puget Sd. (Wash.) . . . . . AA, AK, AX, AZ, BE, BK, BP
Quinault L. (Wash.) . . . . CK
Quinault R. (Wash.) . . . . AA
Samish R. (Wash.) . . . . . AA
Silver Cr. (California) . . AA
Skagit Bay (Wash.) . . . . AA
Tillamook R. (Oregon) . . . AA
US . . . . CO
Umatilla Bank (Wash.) . . . BG
Washington State . . . . . AA, AC, AH, AX, BD-BE, BG-BH, BK,
BP, BY, CK, CN, CO

Wenatchee R. (Wash.)	AA
Wolcott Slough (US)	AH

h. Miscellaneous Locations

Atlantic Ocean	AH
Canada	BF, CO
Clear L. (Man.)	AY
Jasper Park (Alta.)	AY
L. Ontario	AY
L. Superior	AC
Miami (Florida)	CG
Newfoundland	AA, AC, AJ
North Harbour R. (Nfld.)	AA
Spear L. (Indiana)	AS
Sweden	AG

5. ASPECT

Note: The following key words, with a few exceptions, were selected from the Thesaurus of Terms for Aquatic Sciences and Fisheries (FAO 1976).

Abstracts	AC, CP
Abundance [relative abundance]	AD, AH, AK-AL, AO-AP, AR, AT, AW-AX, AZ, BD, BI, BY, CM-CN
Acclimation [adjustment of organisms to captive conditions]	AB, AH, AQ-AR
Acclimatization [adjustment of organisms to unusual conditions in the aquatic environment]	AI, AY
Activity patterns	AH
Aerial photography	AG-AH, AO, BC, BI, BL
Aerial surveys	AO, AQ
Age composition	AC-AE, AG-AH, AK-AM, AO, AQ, AS, BD, BG, BI, BK-BL, BP, BV, BX, CN
Aging methods	AA, AC, AE, AH, BU, CJ
Anadromous migrations	AA, AG, AL, AY, BD
Anaesthesia	AX
Analytical techniques	AR
Anatomy	AJ, CG
Angling [sport fishing]	AC-AD, AG-AH, BI, BO, CB, CD, CF
Annotated bibliographies	AI
Annual reports	AI, BD
Annual variations	AL, AZ, BK, CP
Aquaculture development	AS
Aquaculture statistics	AH
Aquatic birds	AK, AQ
Aquatic mammals	AA, AG, AK, BC-BD, BO
Aquatic plants	AH

Bacteria . . . . AX, BY
Barriers . . . . AG-AH, BC-BD, CP
Bathymetric charts . . . . AL
Bathythermographic data . . . . AH, AO, CN
Beach seine . . . . AA, AP, BM
Behaviour . . . . BA
Benthic environment . . . . BA
Benthos . . . . AG-AH, BY
Bibliographic information . . . . AI, AS, BV
Bibliographies . . . . AH, AO, BK
Biochemical analysis . . . . BV
Biochemical composition . . . . AX, BY
Biogeography . . . . AK
Biological data . . . . CG
Biomass . . . . AO, AQ, AW-AX, BA, BY
Blood . . . . AA, BV
Body size [used for length]. . . . . . AA-AE, AG-AH, AK-AT, AW-AX, AY, BA, BD-BE, BG-BI, BK-BL, BO-BP, BU-BV, BW, BX, CC-CD, CI, CK, CN, CP
Body weight . . . . AA, AC-AE, AG-AH, AK, AO, AQ-AT, AW-AY, BD, BE, BG-BI, BK-BL, BO-BP, BU-BV, CC-CD, CI, CK, CN, CP
Breeding . . . . BU
By catch . . . . BP, CO

Cage culture . . . . BD
Calibration . . . . AC-AE, AH, AL, AO-AS, AX-AY, BF, BP, CM-CN
Carbon 14 . . . . AP, AS, AX, BY
Catalogues . . . . AO
Catch composition . . . . AD, AG-AH, AK-AL, AN-AR, AT, AW-AX, AZ, BD-BE, BH-BI, BK-BL, BO-BP, BW, CN-CP
Catch/effort . . . . AD, AG-AH, AK-AL, AO, AQ, AS, AY, BD, BK-BL, CN
Catching methods . . . . AD, AH, AK
Census . . . . AH, AX, BD
Charts . . . . AP
Chemical analysis . . . . BU
Chemical compounds . . . . BU
Chemical limnology . . . . AP, AS, BY
Chemical oceanography . . . . AT, BA, BY
Chemical pollutants . . . . AS
Chemical properties . . . . BU
Chlorophylls . . . . BY
Coastal fisheries . . . . AA, AC, AE-AH, AL, AN-AO, AQ, AX, AZ, BB, BD-BH, BK, BM, BP, BW-BX, CC-CD, CG-CI, CK, CN-CP
Coastal zone . . . . AK, BA, BO
Colour . . . . AF, BE, BG-BH, BK, BW, CD
Commercial fishing . . . . AM, BC, CA
Community composition . . . . AS
Competition . . . . BA

Computer programs . . . . AH, AO, AX
Condition factor . . . . AO, AR
Conferences . . . . BC, BP, CO
Cost analysis . . . . AB, BD
Counters . . . . BA
Cruises . . . . AK
Current measurements . . . . BD

Dams . . . . AG, AS, BA, BF
Data collections . . . . AK, AM
Data processing . . . . AK
Development (Biological) . . . . BD
Developmental stages . . . . BC
Digestion . . . . AT, AW, BA, BD, BV
Directories . . . . AI
Diseases . . . . BG
Dissolved oxygen . . . . AB, AH, BF
Diurnal variations . . . . AD, AG-AH, AL, AP, BL, BP, CM-CN
Documentation . . . . AI
Dredging . . . . AQ
Dyes . . . . AX

Echo sounding [also used for acoustical
surveys] . . . . AK, AP, BG, CK
Echo surveys . . . . AQ, AT, BO, CM
Economic analysis . . . . AH
Ectoparasites . . . . AS, AX, BG
Egg retention . . . . AX, BL
Electronic equipment [excluding
computers] . . . . BU
Embryonic development . . . . AH
Enclosures . . . . AD, AQ, BA
Endoparasites . . . . AH, AM, AO, AQ-AR, CN
Environmental effects . . . . AX, BD
Escapement . . . . AB-AC, AE, AG-AI, AL, AO, AQ-AS, AX-AZ, BD,
BF-BG, BL, BV, CN-CO
Estuaries . . . . AT-AX, BA, BP, BY
Estuarine fisheries . . . . CH
Evolution . . . . AW
Exclusive economic zone . . . . AH
Experimental culture . . . . AB, AE, AH-AI, AO, AR, AX, BF, BP, CN
Experimental data . . . . AE, BA, BV
Experimental fishing . . . . AA, AC-AE, AG-AH, AJ-AR, AT, AW-AX, AZ, BC,

BI, BK-BL, BP, CA-CB, CE-CF, CI-CK, CM-CN,
CP
Experimental research . . . . AC, CP
Exploitation . . . . AH, AN-AO, AZ, BE, BH, CO
Exploratory fishing . . . . AK, BC, CG

Fatigue . . . . AQ-AR, BV
Fats . . . . AR

Feasibility . . . . AB, AG-AH, AQ, AS, AX, BA, BU, CN
Fecundity . . . . AG-AH, AO, AX-AY, BD, BG, BK-BL, BP, BU, CD, CN
Feed [industrial products used for animal feeding] . . . . AB, BV
Feeding . . . . BU
Feeding migrations . . . . CM
Fin ray counts . . . . AM
Fins . . . . AX, BD-BE, BH, BW-BX, CN
Fish catch statistics . . . . AC, AE-AI, AL, AN-AO, AS, AX, AZ, BD, BF-BH, BK, BM, BP, BV, CP
Fish counters . . . . AO, AQ, AS, CN
Fish culture . . . . AI, AY, BA, BU
Fish larvae . . . . BA
Fishermen statistics . . . . BM, CP
Fishery economics . . . . AH
Fishery industry plants . . . . BB-BC, BW
Fishery management . . . . CO
Fishery oceanography . . . . BA
Fishery regulations . . . . AH, AS, AZ, BD, BK, CO
Fishery statistics . . . . AH, BD, BG, CO
Fishing effort . . . . AD, BD, BK, CO
Fishing gear . . . . AF, BB
Fishing grounds . . . . BB, CO
Fishing mortality . . . . BD
Fishing power . . . . AH, AQ
Fishing time . . . . AF
Fishing vessel statistics . . . . BM
Fishways . . . . AA, AH
Fluvial morphology . . . . AO, AQ, CK
Food availability . . . . AX, BA
Food composition . . . . AK, BY
Food consumption [used for food consumption rate] . . . . BA
Food organisms . . . . BA
Fossil diatoms . . . . AO
Freezing storage . . . . CN
Freshwater . . . . CE
Freshwater ecology [including biological limnology] . . . . AH, AP, BA, BY
Freshwater fish . . . . AA, AC-AE, AG-AI, AO, AQ, AS, AX-AY, BA, BC-BD, BL, BU, CB, CD, CF-CG, CJ-CK, CM-CN, CP
Freshwater lakes . . . . BC, BY, CG
Freshwater pollution . . . . AS, BY
Game fish . . . . AY
Gear construction . . . . AG, CN
Gear research . . . . AH, BD, BG, BK
Gear selectivity . . . . AK, AX, AZ, BP
Genetics . . . . AH
Geographical distribution . . . . AH
Gillnets [also used for gill netting] . . . . AA, AD, AG-AH, AK-AL, AP-AQ, BM, CN

Gillnetters [also used for gill netting] . . . AF, AZ, BC-BE, BG, BK, BP, CP
Gillraker counts . . . AM, BD
Glossaries . . . BO
Grading . . . AQ, BE, BH
Graphic methods . . . CG
Gravel . . . AO, AQ, BD, BF
Grazing [zooplankton on phytoplankton] . . . BA
Growth . . . AB, AE, AG-AI, AK-AL, AO, AQ, AS AX-AY, BA, BG, BP, BU-BV, BY, CN

Habitat improvement (Fertilization) . . . AH, BA
Habitat improvement (Physical) . . . AH, AS
Harbours . . . AS
Hatcheries . . . AB, AE, AH-AI, AQ, AY, BC, BE, BG-BH, BK, BP, BU, CO
Hatching . . . AX
Historical account . . . AG-AI, AQ, BC-BD, BF-BG, BK, CO
Homing behaviour . . . AK
Horizontal distribution . . . AD, AG-AH, AK-AL, AN-AQ, AS, AX, BD-BE, BH, BK, BP, BU, BV, BY, CM, CO
Hybrid culture . . . AC, AE
Hydrology . . . BF

Ichthyoplankton . . . AT, AX, BK, BO
Identification keys . . . AA, AT, AX, BD, BP
Incubation . . . AB, BF, BU
Industrial products statistics . . . BF
Inland fisheries . . . AH, AO
Inorganic suspended matter . . . BA
International agreements . . . AH, CO
International cooperation . . . AA, AG, AL, AS, AZ, BB, BE, BG-BH, BK, BP, BW, CK, CO
International organizations . . . AK
International waters . . . AL
Introduced species . . . AI

Jacks [precocious male salmon] . . . AA-AC, AF-AG, AJ, AO, AQ, AX, BL, CB

Laboratory culture . . . BV
Laboratory equipment . . . BY
Lake fisheries . . . AD
Land forms . . . BC
Lake morphology . . . AG-AH, AQ, CM
Landing statistics . . . BE, BH, BM, BW, BY
Length-weight relationships . . . AC, AH, AK, AR-AS, AX, BK, BU, CN
Lenitic currents . . . AH, AQ, BF
Lenitic environment . . . BF
Lesions . . . AH, AX, BD, CD
Lethal limits . . . AH, AX, BF
Life cycle . . . AR
Life history . . . AH, AW
Light effects . . . AC, AE, AQ, AX, CN

Light penetration [e.g. Secchi disc measurements] . . . . AP
Limiting factors . . . . BF
Limnological data . . . . AG-AH, AX, BD, BL
Limnology . . . . BC
Limnology (Chemical) . . . . AO, AQ
Limnology (Physical) . . . . AO-AQ, BY, CN
Line fishing . . . . BL
Literature reviews . . . . AP, AW
Locomotion . . . . AR, CP
Long term changes . . . . BD, BV, CP
Longlining . . . . AH, AK-AL, BM

Manuals . . . . BD, BW
Mapping [land areas only; also used for maps] . . . . AE, AH-AI, AL, AO, AZ, BD, BF, CK
Marine aquaculture . . . . AS
Marine crustaceans . . . . AT, BC, BM
Marine ecology [used for biological oceanography and marine biology] . . . . AT, AW, BO-BP, BY
Marine fish . . . . AA, AC, AK-AL, AO, AT-AW, BA, BC, BG, BK, BM, CG, CK
Marine molluscs . . . . BM, BU
Marine pollution . . . . BY
Marking [removal of parts or mutilation of an organism for recognition] . . . . AA-AE, AG-AH, AK, AO, AQ-AT, AX-AY, BC-BE, BG-BI, BK-BL, BP-BU, BW-BX, CA, CD, CF-CG, CN-CO
Mathematical models . . . . CN
Measuring devices . . . . BD, BU, BY
Meristic counts . . . . AL-AM, BD, BP
Mesh selectivity . . . . AG-AH, AL, AQ, BD, CN
Metabolism . . . . AH
Meteorological data . . . . BA
Methodology . . . . AB, AH, AO-AQ, AS, AX-AZ, BA, BD, BK, BU-BV, CN-CP
Micro-organisms . . . . BA
Microforms [e.g. microfilms] . . . . . BM
Midwater trawls . . . . AP, CN
Migrations . . . . AD, AH, AO, BG, BK-BL, BP, CO
Monitoring . . . . AR
Mortality . . . . AB, AD, AH, AO, AQ-AS, AX-AY, BU, CN
Mortality causes . . . . AG

Natural mortality . . . . AG, BL
Net fishing [excluding seining and trawling] . . . . CF
Netting materials . . . . AL
Nursery grounds . . . . AQ, CN

Oceanographic data . . . . AK, AO, AX
Oceanographic equipment . . . . BY
Orientation behaviour . . . . AH, AO, AX, BU
Osmoregulation . . . . AR, CP
Otolith reading . . . . AC, AE, AO

Parasites . . . . AL
Parasitology . . . . AA, AR
Pelagic environment . . . . AK, BA, BD
Pelagic fisheries . . . . AA, AH, CK
Photographs . . . . AG, AL, AO, AS, BC, BG, BU, CN
Photometers . . . . AP
Physical oceanography . . . . AL, AT, BY, CP
Phytoplankton . . . . BA, BO, BY
Plankton . . . . AH, AX, BK
Plankton collecting devices . . . . . AH
Pollution data . . . . AX
Pollution effects . . . . AS, BU, BY
Population characteristics [used for population estimates and population parameters] . . . . . CO
Population density [also used for population dependent factor] . . . . AH, BA, CM
Population dynamics [changes that take place during the life span of a population] . . . . BV
Population genetics . . . . AW, BU
Population number . . . . AD, AG-AH, AO, AQ-AS, AX-AZ, BD, BF, BL, BU-BV, CK, CN
Population structure [composition by size, sex and age groups of a breeding population] . . . . . . AC, BV
Potential yield . . . . AL
Precipitations (Atmospheric) . . . . . AH, AX, BF
Predation [used for prey and predator/prey relationships] . . . . AD, AH, AQ, AX, BA, BD, BL, BY, CN
Predator control . . . . BC
Predators . . . . AG, BC
Predictions . . . . BA
Primary production . . . . AP, AS, AX, BA, BY
Production (Biological) . . . . AG-AH, AT-AW, BA
Progress reports . . . . AG, BG, BP
Proposed research . . . . AG-AH
Purse seines . . . . CP
Purse seining . . . . AA, AF, AL, AP, AZ, BG, BI-BK, BM, BP, CM-CN

Quantitative distribution . . . . AI

Racial studies . . . . AA, AC, AE, AL, BD, BU, CN
Radioisotopes . . . . BU
Recording equipment . . . . BF
Redd sampling . . . . AG-AH, AO AQ, AS, AX, BD, BF, CN
Regional variations . . . . AC, AK-AL, AO, AR, BD, BK, CN
Regression analysis . . . . AH, AX, BF, BK
Reproductive behaviour . . . . AH, AO, AQ, AS, BA
Reproductive organs . . . . AC, AH, AK-AM, AO, BG, BP
Research programmes . . . . BA
Research vessels . . . . BA, BD
Rheotaxis . . . . AH
River discharge . . . . AG-AH, AO, AX, BD, BF, BI, BY, CN
Rivers . . . . BC

Salinity . . . AL, AW, BO-BP
Salinity effects . . . AH, BP
Salinity tolerance . . . AH, AX, BF, CP
Samplers . . . AS, AX, BP
Samples . . . BC
Sampling (Biological) . . . AC, AE, AJ, AM, BW, CH
Sampling (Statistical) [used for random sampling, statistical sampling and stratified sampling] . . . CN
Scale counts . . . AM
Scale impression cards . . . AA, AC, AQ, AX, BE-BF, BP, CA-CB, CG, CJ-CK, CN
Scale reading (Ages) . . . AA, AC, AE, AG-AH, AL, AO, AQ, AT-AW, BD-BF, BH, BK, BP, BW-BX, CN
Scale reading (Circuli measurements) . AA, AC, AE, AH, AL, AO, AQ-AT, AW-AX, BE, BH-BI, BK, BP, CG, CN
Scales . . . AA, AE, AH, AQ, AX, BD-BE, BG-BI, BK-BL, BP, BU, BW-BX, CA-CK, CN
Scientific personnel . . . AE, BA, BC
Sea law . . . AH
Season regulations . . . AG
Seasonal variations . . . AL, AQ, AY, BY
Secondary production . . . BA
Sedimentation . . . BA
Seining . . . AH, AK, AT-AW, BC
Selective breeding . . . AB, AO
Sex ratio . . . AA, AC-AE, AG-AH, AK-AM, AO, AQ, AX-AY, BD-BE, BG-BI, BL, BP, BW-BX, CC-CD, CI, CK, CN, CP
Sexual maturity . . . AC, AE, AG-AH, AK-AM, BK, CD
Shellfish catch statistics . . . BM
Shellfish culture . . . BA
Shellfish fisheries . . . BC
Size distribution . . . AC-AE, AG-AH, AO-AT, AW-AX, BA, BG, BI, BO-BP, CN
Solar radiation . . . AW, BY
Spawning . . . AQ, BU
Spawning grounds . . . AA, AD-AE, AH, AL, AO, AQ, AS, AX, AZ, BB-BD, BF-BG, BX, CD, CG, CK
Spawning migrations . . . AH, AL, AN, AY-AZ, BB-BC, BV, CN
Spawning seasons . . . AH, AL, AX, AZ
Spectroscopic techniques . . . BP, BU
Sport fishing . . . AI, BE, BH, BP, CI
Sport fishing statistics . . . AD-AE, AH, AX, BA, BI, BK, BP
Staining . . . AB, AG
Starvation . . . AC, AE, AX
Statistical analysis . . . AC, AH, AO, BV
Stock assessment . . . AD, AL, BV
Stock identification . . . AC, AE, AG-AH, AK-AL, AN-AO, AS, AZ, BB, BE, BG-BH, BP, CG, CN-CO
Stocking (Organisms) [used for transplantation of organisms] . . . AA, AH-AI, AQ, AY, BC-BD, BK, BP

Stomach content . . . . AA, AC-AD, AG-AH, AK-AM, AO-AQ, AT, AW-AX, BA, BD, BG, BI, BK-BL, BO-BP, BY, CD, CG, CK, CN, CP
Stream flow . . . . CN
Survival . . . . AE, AI, AO, AQ, AS, AX-AY, BA, BF, BL, BP, CN-CO

Tagging . . . . AA-AE, AG-AI, AK-AL, AN-AO, AQ, AS, AX, AZ, BB-BE, BG, BI, BK-BL, BP, BU-BV, BW, CA, CC-CD, CG, CI, CK, CN-CP
Taxonomy . . . . BK
Temperature effects . . . . AH, BV, CN
Temporal distribution . . . . AG, AK-AL, AN-AO, AR, AY-AZ, BD, BU
Test fishing . . . . AA, AC, AE, AG-AH, AJ, AQ, BB, BD, BK, CB, CJ
Thermal aquaculture . . . . AB
Theses . . . . AG
Time series analysis . . . . BF
Translations . . . . AH
Trap fishing . . . . AA, AF, AH, AN-AO, AQ-AR, AT, AY, BC-BD, BG, BI, BK, CB, CE, CN, CP
Trawling . . . . AR, AT, AW, BM, BP, CM
Trolling . . . . AA, AF, AH, AL, AS, AZ, BE, BG-BH, BK, BP, BW, CO
Trophic levels . . . . BA

Underwater photography . . . . AS
Upwelling . . . . BA

Vertebrae . . . . AB
Vertebrae counts . . . . AM, BD
Vertical distribution . . . . AH, AK-AL, AP-AQ, AX, CM-CN
Vertical migrations . . . . AP, CM

Water analysis (Chemical) . . . . . . AH, BA
Water depth . . . . AB, AD, AH, AO, AT-AW, AY, BD, BF, BI, BL
Water pollution . . . . BA
Water quality . . . . BF
Water temperature . . . . AB, AD, AH, AO, AS, AW, AY, BD, BF, BI, BL, BO, BV, CP
Watersheds . . . . AL, AS
Weather conditions . . . . AG-AH, AK, AO-AQ, AS-AT, AW-AX, AY, BL
Weather ships . . . . AA, AC, BO
Weirs . . . . AA, AC-AE, AG-AH, AM, AO, AQ, AS, AX-AZ, BB-BD, BL, CB, CD-CG, CJ-CK, CN, CP
Wet weight . . . . BO

X-ray analysis . . . . AM
X-rays . . . . AJ

Yield . . . . BK
Yield predictions . . . . AH, BD, BF, CN

Zooplankton . . . . AH, AL, AO-AP, AR, AT, BA, BO, BY, CN

CATALOGUE

The documentation of each Record Group begins with a summary of its contents. Then there are listings of key words which also summarize the contents and are used in indexing. Finally, the Register is presented, giving a description of each record and its identification code (e.g. AA/2/4).

** AA **

SCALES AND SCALE IMPRESSIONS

YEARS: 1939-72, 1974-75

SIZE: 28 boxes

DESCRIPTION

This is largely a group of salmon scales and impressions from High Seas (H/S), coastal and inland locations around the north Pacific Ocean. They are the main body of scales which were collected by T. Bilton for the Salmon Stock Assessment Program. Record group CA has related scales and scale impressions from the H/S. The last few boxes have some tagging and sampling data associated with scales which came from tagging programs on the north coast in the 1930's and 40's.

1.Table of Contents (by Species):

..Sockeye: 1/1-4, 2/1-5/2, 14/2-16/2, 16/4-17/1, 18/1-4, 21/1-3, 22/1-2, 23/2-3, 24/4, 25/1-3, 26/2-4, 27/4-10, 28/1-2.

..Pinks: 8/1-9/4, 16/2, 16/4-17/2, 17/4, 21/3-22/1, 22/3, 25/3, 26/4, 27/3, 27/11.

..Chum: 5/2-8/1, 13/4, 16/4-17/2, 22/1-23/1, 25/2-3, 26/2, 26/4, 27/2-3.

..Coho: 9/4-10/4, 13/4, 14/1, 16/4-17/2, 22/3, 23/2, 25/3, 26/2, 26/4, 27/11.

..Chinook: 10/4-14/1, 17/1-2, 22/2, 23/2, 26/4, 27/11.

..Masu: 25/4, 26/4.

..Steelhead: 16/2-3, 17/1-4, 23/2, 26/4.

..Mixed salmon species: 17/1-4, 18/1, 18/4-20/3, 23/2-24/4, 25/3-26/2, 26/4, 27/2, 28/1-2.

..Kokanee: 16/3-4, 26/4.

..Miscellaneous freshwater and marine fish: 16/3-4, 26/4, 27/1.

..Miscellaneous: 1/0 and 1/5 (Key to location codes and indices to original scale files and scale data on computer cards).

2.Notes Regarding the File Titles:

a)Marine locations were too numerous to list. We have given Statistical Areas instead but specifically mention freshwater locations.

b)Abbreviations: T.F. = test fishing, Para. = parasitology samples, H/S = high seas, WCVI = W. coast of Vancouver Is., SSA = Salmon Stock Assessment program (Bilton), and SpringCo = Spring and Coho program (Milne and Godfrey).

c)Special statistical areas: The SSA and SpringCo programs had codes for general areas of the B.C. coast which used some identical numbers for different areas. A key follows:

Description	Management Areas	SSA	SpringCo
-WCVI	21-27		40
-Georgia Str.	13-19		41
-Queen Charlotte Sd.	6-11		42
-Hecate Str.	2-5		43
-off S.E. Alaska			44
-Johnstone Str.	12-13	40	
-N. coast	1-11	41	
-S. coast	12-29	42	
-Mixed Fraser sub-areas below Mission	29-0,-1,-2	29-0	
-Cdn. H/S or Fraser R. - late runs	29	32	
-Fraser R. - early runs	29	31	

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Kokanee / Steelhead / Masu / Fish

Life Stage

Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

All B.C. Areas / Alsek-Taku-Stikine / Yukon River

Location

High Seas / Station 'P' / Yubetsu R. (Japan) / Hokkaido Is. (Japan) / Nono R. (Japan) / Ztorofu R. (Japan) / Tokachi R. (Japan) / Ishikari R. (Japan) / Nishibetsu R. (Japan) / Abashiri R. (Japan) / Tokoro R. (Japan) / Shari R. (Japan) / Shibetsu R. (Japan) / Siniri R. (Japan) / Uebetsu R.

(Japan) / Sea of Okhotsk / Kamchatka (USSR) / USSR / Amur R. (USSR) / Kukhtui (Kukhtuy?) R. (USSR) / Tatar R. (USSR) / Utoka (Ukolka?) R. (USSR) / Icha R. (USSR) / Bol'shaya R. (USSR) / Ozernaya R. (USSR) / Kamchatka R. (USSR) / L. Dalnee (USSR) / Dal'nyaya R. (USSR) / Blyinyaya R. (USSR) / Karymiskii (Karymai?) Spring (USSR) / Bering Sea / Bering Str. / Alaska / Western Alaska / Teller (Alaska) / Unalakleet R. (Alaska) / Yukon R. (Alaska) / Kuskokwim R. (Alaska) / Bristol Bay (Alaska) / Branch R. (Alaska) / Kvichak R. (Alaska) / Alaska Penin. (Alaska) / Aleutian Islands (Alaska) / Central Alaska / Kodiak Is. (Alaska) / Karluk R. (Alaska) / Karluk L. (Alaska) / Uyak Bay (Alaska) / Haines (Alaska) / Eshamy R. (Alaska) / Copper R. (Alaska) / Cape Spencer (Alaska) / S.E. Alaska / Canyon Is. (in Taku R., Alaska) / Auke Cr. (Alaska) / Yukon / Aishihik L. (Yukon) / Hay River (NWT) / Nakina R. (Alsek-Taku-Stikine) / Stikine R. (Alaska and Alsek-Taku-Stikine) / Tahltan L. (Alsek-Taku-Stikine) / Horseshoe Grounds (Hecate Str., 2E) / Reef Is. (2E) / Nass R. (3) / Meziadin R. (3) / Aiyansh (3) / Prince Rupert / Skeena system (4) / Skeena R. (4) / Rachael Islands (4-1) / Kwinitsa R. (4-2) / Gitnadoix R. (4-2) / Alastair L. (4-2) / Lakelse system (4-2) / Lakelse R. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Williams Cr. (4-2) / Granite Cr. (4-2) / Kitsumkalum (Kalum) system (4-2) / Clear Cr. (4-2) / Zymoetz (Copper) R. (4-2) / McDonell L. (4-2) / Kitwanga R. (4-2) / Kitwanga system (4-2) / Kispiox R. (4-2) / Kispiox system (4-2) / Stephens L. system (4-2) / Swan L. (4-2) / Falls Cr. (4-2) / Bulkley R. (4-3) / Moricetown Falls (4-3) / Morice R. (4-3) / Morice L. (4-3) / Nanika R. (4-3) / Glen Vowell (4-3) / Sicintine R. (4-3) / Sicintine L. (4-3) / Slamgeesh system (4-3) / Bear L. (4-3) / Asitka L. (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Babine R. (Lower) (4-4) / Onerka L. (4-4) / Nilkitkwa L. (4-4) / Babine R. (Upper) (4-4) / Babine R. (4-4) / Babine system (4-4) / Babine L. (4-4) / 9-Mile Cr. (4-4) / Morrison R. (4-4) / Tahlo Cr. (4-4) / Fulton R. (4-4) / Tachek Cr. (4-4) / Sockeye Cr (4-4) / Pierre Cr. (4-4) / Twain (Twin) Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / 4-Mile Cr. (4-4) / Gullwing (6-Mile) Cr. (4-4) / Shass (Grizzly) Cr. (4-4) / Banks Is. (5) / Gale Bay (5) / Deer Pt. (5) / Bare Bay (5) / Principe Chan. (5) / Pitt Is. (5) / Cridge Lagoon (5) / Mink Trap Bay (5) / Mikado Bay (5) / Lowe In. (5) / Butedale (6) / Whale Chan. (6) / Nalau Pass. (7) / Goose Is. Grounds (7) / Port John (8) / Hooknose Cr. (8) / Dean Chan. (8) / Namu (8) / Port John L. (8) / Tally Cr. (8) / Koeye R. (8) / Windy Bay (8) / Hecate Str. (53) / Rivers In. (9) / Owikeno system (9) / Wannock R. (9) / Smith In. (10) / Cape Scott (11) / Queen Charlotte Sd. (52) / Ahta R. (Waterfall Cr.) (12) / Glendale R. (12) / Quatse R. (12) / Campbell R. (13) / Georgia Str. (50) / Puntledge R. (14) / Union Bay (14) / Fanny Bay (14) / Rosewall Cr. (14) / Chef (Cook) Cr. (14) / Lymn Cr. (14) / Qualicum (Big Qualicum) R. (14) / Little Qualicum R. (14) / Cameron L. (14) / Northwest Bay (14) / Sakinaw L. (16) / Gabriola Is. (17) / Brannen L. (17) / Barsby L. (17) / Quennell L. (17) / Yellow Pt. (17) / Porlier Pass (17) / Cowichan Bay (18) / Cowichan L. (18) / Gulf (San Juan) Islands (17-18) / Juan de Fuca Str. (19-20) / Victoria / Albert Head (19) / Sooke / Port San Juan (20) / W. coast of Vancouver Is. (51-2) / Nitinat L. (22) / Great Central L. (23) / Robertson Cr. (23) / Stamp R. (23) / Stamp Falls (23) / Somass R. (23) / Alberni In. (23) / Nahmint L. (23) / Kildonan L. (23) / Ucluelet / Kyuquot Chan. (26) / Coal Harbour (27) / Vancouver / Point Grey (29) / Semiahmoo (White Rock) Bay (29-0) / Steveston / Okanagon R. (29-0) / Fraser system (29) / Fraser R. (29) / Canoe Pass. (29-1) / Kanaka Cr. (29-1) / Pitt R. (29-1) / Widgeon Slough (29-1) / Alouette R. (29-1) / Harrison R. (29-2) / Weaver Cr. (29-2) / Big Silver Cr. (29-2) / Vedder R. (29-3) / Sweltzer Cr. (29-3) / Cultus L. (29-3) / Portage Cr. (29-4)

/ Gates R. (29-4) / Birkenhead R. (29-4) / Seton L. (29-4) / Pavilion Cr. (29-5) / Fawn L. (29-5) / Loon L. (29-5) / South Thompson (Little R. section) (29-5) / Shuswap L. system (29-5) / Scotch Cr. (29-5) / Shuswap R. (Middle) (29-5) / Adams R. (29-5) / Seymour R. (29-5) / North Thompson R. (29-5) / Barriere R. (29-5) / Raft R. (29-5) / Taseko system (29-6) / Chilko system (29-6) / Quesnel R. (29-6) / Quesnel system (29-6) / Horsefly R. (29-6) / Little Horsefly R. (29-6) / Bowron R. (29-6) / Prince George / Stuart System (29-7) / Stuart L. (29-7) / Tachie R. (29-7) / Middle R. (29-7) / Gluskie Cr. (29-7) / O'Ne-ell (Kynoch) Cr. (29-7) / Narrows Cr. (29-7) / Stellako R. (29-7) / Nadina R. (29-7) / Kootenay L. (Kootenay system) / Washington State / La Conner (Wash.) / Puget Sd. (Wash.) / Skagit Bay (Wash.) / Samish R. (Wash.) / Tillamook R. (Oregon) / Quinault R. (Wash.) / Columbia R. / Wenatchee R. (Wash.) / Hennan L. (California) / Silver Cr. (California) / Newfoundland / North Harbour R. (Nfld.)

Aspect

Aging methods / Aquatic mammals / Anadromous migrations / Beach seine / Blood / Body size / Body weight / Coastal fisheries / Experimental fishing / Fishways / Freshwater fish / Gillnets / Identification keys / International cooperation / Jacks / Marine fish / Marking / Parasitology / Pelagic fisheries / Purse seining / Racial studies / Scale impression cards / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sex ratio / Spawning grounds / Stocking (Organisms) / Stomach content / Tagging / Test fishing / Trap fishing / Trolling / Weather ships / Weirs

REGISTER: RECORD GROUP AA

AA/1/0 (1)Key to the B.C. area and location codes used by the Salmon Stock Assessment (SSA) group (e.g. the Babine fence is SSA location 05 in SSA sub-area 9 of Area 4 - "4-9-05"); (2)computer coding key for the H/S salmon scale study; (3)file indices of what was available on computer cards (now on tape, probably) with respect to sampling data from commercial catches, escapements, juvenile migrants and meristics studies; and (4)an index of the packages of mounted and un-mounted scales that were in the storehouse which burned in the early 1970's. These scales were salvaged and are now scattered through several record groups.

AA/1/1-1/4: Scale impressions from adult sockeye:

...1/1 Areas 3, 9(1955-56) and 13(1953); Nass (1955-57), Meziadin R. (1957), Skeena T.F. (1956), Skeena R. at Kispiox (1955-57), Lakelse system (1955), Kitsumkalum system (1955), Nanika R. (1955), Babine fence (1949,50,52, 53,55,56), Namu (1956), Owikeno system (1956) and Fraser system (Canoe Pass, Kanaka Cr. and Cultus L. in 1955; Georgia Str., Steveston and Chilko system in 1956).

...1/2 1957 - Offshore tagging of Skeena sockeye (Areas 3-5), Skeena T.F., Lakelse system, Babine fence, Port John, Areas 8-9, and Okanagon R.

...1/3 (1) 1957 (cont'd) - Areas 10 and 29, Georgia Str., Quinault R. (US - Para.) and Columbia R. (US - Para); and (2)1958 - Areas 3-10, Area 12, Skeena T.F., offshore tagging of Skeena sockeye (Areas 3-5), Lakelse system, Kitwanga system and Babine fence.

...1/4 (1)1958 (cont'd) - Areas 5-10, 12, 13, 16, 23, 27 and 29; and (2)1959 - Areas 2-4, Gitnadoix R., Morice L., Point Grey, Fraser R. (Para.) and Juan de Fuca Strait.

AA/1/5 Index to scale impressions with (1)lot no. and Statistical Areas and (2)box no. and source.

AA/2/1-5/1: Adult sockeye scale impressions (cont'd):

...2/1 (1)1960 - Areas 5-8, 10, 12, 13, 16, 20, 23 and 24; Skeena T.F. and Sooke; and (2)1961 - Areas 1 and 3 and Aiyansh.

...2/2 1961(cont'd) - Areas 3-10, 12 and 13 (including outside tagging of Skeena sockeye in Areas 3-5), Kwinitsa, Skeena T.F. and upper Skeena locations.

...2/3 (1)1961 (cont'd) - Areas 16, 23, 24, and SSA 31 (SSA code for early Fraser runs above Mission) and Sweltzer Cr.; and (2)1962 - Skeena T.F., Scully Cr., Williams Cr., Granite Cr. and Areas 3, 5, 6, 8 and 9.

...2/4 (1)1962 (cont'd) - Areas 10, 12-13, 16, 23, 24, 27, 29 and SpringCo 40 (SpringCo code for WCVI); and (2)1963 - Areas 3, 5-10, Skeena T.F. and Wannock R.

...3/1 (1)1963 (cont'd) - Areas 12, 13, 16, 20, 23-25, 28, 29, SpringCo 40 (WCVI) and Great Central L.; and (2)1964 - Areas 2-9 including Skeena T.F. and Area 4 jack and total length samples.

...3/2 (1)1964 (cont'd) - Rivers In. transplant experiment (H/S salmon program) and Areas 9, 10, 12, 13, 16, 23, 24, 27, 29 and SpringCo 43 (Areas 2-5, Hecate Str.); and (2)1965 - Area 3, Skeena T.F., Skeena R. (including meristics samples), Babine fence jacks and Owikeno L. system.

...3/3 (1)1965 (cont'd) - Areas 20, 23 and 29, including Fraser R. (meristics); and (2)1966 - Skeena T.F., Owikeno L. system and Areas 3-10 and 12.

...3/4 (1)1966 (cont'd) - Areas 12, 13, 20, 23, 27, 29 and SSA 31 (early Fraser runs above Mission), including Fraser R. (meristics); and (2)1967 - Areas 12, 13, 18, 20, 23-27 and 29.

...4/1 1967 (cont'd) - S.E. Alaska, Skeena T.F. and Areas 3, 4, 6-8 and 29.

...4/2 (1)1967 (cont'd) - Areas 9 and 10; and (2)1968 - Areas 1, 3-10 and 12, including Skeena T.F.

...4/3 (1)1968 (cont'd) - Areas 16, 20, 24, 25, 27 and 29; and (2)1969 - S.E. Alaska, Skeena T.F. and Areas 1-10, 12, 13 and 15.

...4/4 (1)1969 (cont'd) - Areas 16, 18, 20, 23, 24, 27 and 29; and (2)1970 - Skeena T.F. and Areas 1, 3, 4, 6-13, 20, 23, 25 and 29.

...5/1 (1)1971 - Skeena T.F. and Areas 1, 3-6, 8-10, 12, 13, 16, 17, 20, 23, 24, 27 and 29; and (2)1972 - Areas 1 and 3-5.

AA/5/2 Scale impressions: (1)Adult sockeye, 1972 (cont'd) - Areas 6, 9, 12, 13, 16, 20, 23 and 29; and (2)adult chum - Areas 2E (1940-41); Areas 23, 25, and 27 (1941); Area 2 (1942); Area 12 (1953); Areas 4, 8, 9 and 29 (1955); Areas 3, 4, 8, 9, 12, 13, 18, SSA 29-0 (mixed sub-areas at the mouth of the Fraser R.) and SpringCo 41 (Georgia Str.) (1956); and Areas 3-5, 7-9, 12, 13 and 23 (1957).

AA/5/3-7/4: Scale impressions from adult chum (cont'd):

...5/3 (1)1957 (cont'd) - Areas 24, 29 and SSA 50 (SSA's code for "Canada Inland". In this instance it is Hay R., NWT); (2)1958 - Areas 1 and 3-8; and (3)1959 - Waterfall Cr. (Ahta R.) and Areas 3, 4, 7-10, 12 (with some spawning stream samples), 13, 14, 17, 18, 20, 22, 26, 28, SSA 29-0 (Fraser mouth) and SpringCo 40.

...5/4 (1)1959 (cont'd) - Areas 3-13, 16-18, 20, 23-26, SSA 29-0 (Fraser mouth) and SSA 29-1 (Fraser below New Westminster), including outside tagging of Skeena stocks in Areas 3-5; and (2)1960 - Areas 1-7, including Skeena T.F.

...6/1 1960 (cont'd) - Areas 7-14, 16, 18, 20, 22 and 23.

...6/2 (1)1960 (cont'd) - Areas 24-27 and 29; and (2)1961 - Areas 1-9, including Skeena T.F.

...6/3 (1)1961 (cont'd) - Areas 8-10, 12-16, 18, 20 and 24-26; and (2)1962 - Areas 1-7.

...6/4 (1)1962 (cont'd) - Areas 7-10, 12-14, 16, 18, 20, 23-26, SSA 29-0 and SpringCo 40; and (2)1963 - 1 and 3-8.

...7/1 (1)1963 (cont'd) - Areas 1, 8-10, 12, 13, 18-20, 24-26 and 29; and (2)1964 - Areas 1-10 and 12.

...7/2 (1)1964 (cont'd) - Areas 20, 25 and 29; (2)1965 - Areas 1-10, 12, 13, 20 and 29, including Skeena T.F.; and (3)1966 - Areas 1-10, 20 and 29, including Skeena T.F.

...7/3 (1)1967 - Special FRB samples and samples from Alaska and Areas 3-10, 12, 13, 20 and 29; and (2)1968 - Areas 1-8.

...7/4 (1)1968 (cont'd) - Areas 9, 10, 12, 13, 18 and 29; (2)1969 - samples from Alaska and Areas 1-10, 12, 13, 20 and 29; and (3)1970 - Areas 3-7.

AA/8/1 Scale impressions: (1)Adult chum, 1970 (cont'd) - Areas 8-10, 12-16, 20, 25, and 29; (2)adult chum, 1971 - Areas 1-6, 8, 12, 13 and 20; (3)adult chum, 1972 - Areas 1-8, 12, 13, 17, 18, 20, 22, 23 and 29; (4)adult pinks, 1955 - Areas 4 and SSA 29-0 and Lakelse R.; (5)adult pinks, 1956 - Areas 4, 8 and 9; and (6)adult pinks, 1957 - Area 3 and Skeena T.F.

AA/8/2-9/3: Scale impressions from adult pinks (cont'd):

...8/2 (1)1957 (cont'd) - Areas 4, 6-9 and 29 and Georgia Str.; (2)1958 - Areas 1-9 and 29, including outside tagging of Skeena stocks in Areas 3-5; and (3)1959 - Areas 3 and 4, including Skeena T.F.

...8/3 (1)1959 (cont'd) - Areas 4-10, 12, 13, 15, 16, 20, 28, 29, SSA 29-0 and SpringCo 40; (2)1960 - Areas 1-10, 12 and 13, including Skeena T.F.; and (3)1961 - Areas 1-3.

...8/4 (1)1961 (cont'd) - Areas 4-10, 12, 13, 16, 20, 29, SpringCo 40 and Skeena T.F.; (2)1962 - Areas 1-10, 12, 13, 26 and SpringCo 40, including Skeena T.F.; and (3)1963 - Areas 1-3.

...9/1 (1)1963 (cont'd) - Areas 4-9, 12, 13, 16, 19, 20, 23-26, 29 and SpringCo 40; (2)1964 - Areas 1-10, 12, 13, 20 and 27; and (3)1965 - Areas 3-10, 12, 13 and 20, including Skeena T.F.

...9/2 (1)1965 (cont'd) - Area 29; (2)1966 - Areas 2-10, 12, 13, 20, 26 and 27, including Skeena T.F. and Newfoundland transplant samples; and (3)1967 - Areas 2-7.

...9/3 (1)1967 (cont'd) - Areas 8-10, 12, 13, 16, 18, 20, 23, 27 and 29; (2)1968 - Areas 3-9; (3)1969 - Areas 4-10, 12, 20 and 29; and (4)1970 - Areas 1-8.

AA/9/4 Scale impressions: (1)Adult pinks, 1970 (cont'd) - Areas 9, 10, 12, 13 and 25; (2)adult pinks, 1971 - Areas 3-5, 12, 13, 20 and 29; (3)adult pinks, 1972 - Areas 1-7, 9, 12, 13 and 26; (4)coho, 1957 - Areas 14, 17, 20, 29 (including Harrison R.) and SpringCo 40; (5)coho, 1958 - Areas 4, 20 and SpringCo areas 40 and 41 (WCVI and Georgia Str.), including Skeena T.F.; and (6) coho, 1959 - Areas 2, 4-9 and 12, including Skeena T.F.

AA/10/1-10/3: Coho scale impressions (cont'd):

...10/1 (1)1959 (cont'd) - Areas 13, 16, 20, 26 and 29; (2)1960 - Areas 1, 4-9, 12-14, 20, 29 and SpringCo areas 40, 41, 43 and 44 (WCVI, Georgia Str., Hecate Str. and off S.E. Alaska), including Skeena T.F.; and (3)1961 - Areas 1-9, 12, 13 and 16, including Skeena T.F.

...10/2 (1)1961 (cont'd) - Areas 23, 29 and SpringCo areas 40 and 41; (2)1962 - Areas 1-4, 6-10, 12, 13, 17, 18, 20, 29 and SpringCo areas 40, 41 and 43, including Skeena T.F.; and (3)1963 - Areas 1, 3, 6-9, 13, 17, 19, 20, 24-26, 29 and SpringCo areas 40-42 (WCVI, Georgia Str. and Queen Charlotte Sd.).

...10/3 (1)1964 - Areas 1, 7, 12, 20, 23 and SpringCo areas 40-43 (WCVI, Georgia Str., Queen Charlotte Sd. and Hecate Str.); and (2)1965 - Areas 4, 12, 20 and SpringCo areas 40 and 41.

AA/10/4 Scale impressions: (1)Coho, 1965 (cont'd) - SpringCo areas 42 and 43; (2)coho, 1968 - "shore samples by gear testing"; (3)coho, 1971/72 - Lymn Cr.; (4)chinook, 1955 - Area 23; (5)chinook, 1956 - SSA area 31; (6)chinook, 1957 - Areas 9, 29, SSA 29-0, SpringCo 40 and SpringCo 41; (7)chinook, 1958 - Areas 3-5, 8, 12, 20, SSA 29-0 and SpringCo areas 40 and 41, including outside tagging of Skeena stocks in Areas 3-5 and Skeena T.F.; (8)chinook, 1959 - Areas 3, 4 and SpringCo areas 40-41, including Skeena T.F.; and (9)chinook, 1960 - Areas 1-4, 6, 12, 29, SSA 29-0 and SpringCo area 41, including Skeena T.F.

AA/11/1-13/3: Chinook scale impressions (cont'd):

...11/1 (1)1960 (cont'd) - SpringCo areas 40 and 43; (2)1961 - Areas 1-5, 7, 29, SSA 29-0 and SpringCo areas 40-43, including Skeena T.F.; and (3)1962 - Areas 1, 3-6, 8 and 9, including Skeena T.F.

...11/2 (1)1962 (cont'd) - Areas SSA 29-0 and SpringCo 40-43; and (2)1963 - Areas 1, 3, 4, 7, 9, 29, SSA 29-0 and SpringCo 40.

...11/3 (1)1963 (cont'd) - SpringCo areas 41 and 43; and (2)1964 - Georgia Str. and Areas 1, 12, 20, 29 and SpringCo area 40.

...11/4 1964 (cont'd) - SpringCo areas 40-43 and Areas 7, 8 and 12.

...12/1 1965 - SpringCo areas 40-41 and Areas 20 and 29.

...12/2 (1)1965 (cont'd) - SpringCo areas 41-43; and (2)1966 - Area 29 and SpringCo area 40.

...12/3 1966 (cont'd) - SpringCo areas 40-43.

...12/4 (1)1966 (cont'd) - SpringCo area 43; and (2)1967 - Areas 29 and SpringCo 40 (Vancouver and Namu landings).

...13/1 (1)1967 (cont'd) - SpringCo areas 40, 41-42 (Vancouver and Namu landings), 43 (Prince Rupert and Namu landings) and 44 (off S.E. Alaska, landed at Prince Rupert); and (2)1968 - SpringCo area 40 (Vancouver and Namu landings).

...13/2 (1)1968 (cont'd) - SpringCo areas 40-42 (Namu and Vancouver); and (2)1969 - SpringCo area 41.

...13/3 (1)1969 (cont'd) - (1)SpringCo areas 41-42 (Namu) and 43; (2)chinook mark sampling at Vancouver, Victoria and Namu, including SpringCo area 40 and 42 catches; (3)catches from cruises 1-4 by "Sharlene K"; and (4)Area 29 catches.

AA/13/4 Scale impressions: (1)Chinook, 1969 (cont'd) - Areas 29 and SpringCo 40; (2)1964 - mark recoveries of chinook, coho and chum; and (3)1965 - mark recoveries of chinook.

AA/14/1 Scale sampling and mark recovery field books and scale impressions. The scale impressions are from (1)chinook sampling at Vancouver (1964, 1968); (2)chinook mark recoveries at Prince Rupert, Namu and an unknown location (1965); (3) coho from SpringCo area 40; (4)gillnet recoveries of marked chinook "unduplicated within Columbia R. drainage" (for aging comparisons); and (5)Vancouver, Victoria, Prince Rupert and Namu mark recoveries of coho (1965) and chinook (1966-68).

[Note: sequence numbers on the file boxes of scale impressions indicate that one box is missing at this location.]

AA/14/2-16/1: Sockeye scale impressions, primarily from freshwater locations:

...14/2 Fraser system: (1)jacks, 1958 - Chilko R., Portage Cr., Stellako R., Gates Cr., Adams R., Birkenhead R. and Seymour R.; (2)adults, 1958 - San Juan Islands, Steveston and Adams R.; (3)smolts, 1958 - Chilko R.; (4)adults, 1960 - Cultus L., (upper) Pitt R., Widgeon Slough, Harrison R., Weaver Cr., Gates Cr., Big Silver Cr., Birkenhead R., "Little R." (S.Thompson R. between Shuswap and Little Shuswap Ls.), Raft R., Adams R., Taseko L., Nadina R., Stellako R., Kynoch(O'Ne-ell) Cr. , Narrows Cr., Middle R., Tachie R. and Bowron R.; (5)adults, 1961 - Harrison R., Widgeon Slough, Adams R., Cultus L., Tachie R., Driftwood R., Kynoch(O'Ne-ell) Cr., Narrows Cr., Bowron R., Stellako R., Weaver Cr., Gates Cr., Chilko R., Seymour R., Taseko R., Raft R., Horsefly R., N. Thompson R., (upper) Pitt R., Barriere R., Birkenhead R., Nadina R., Middle R. and Scotch Cr.; (6)adults, 1962 - Birkenhead R., early Stuart run, Driftwood R., Harrison R., Cultus L., Adams R., Gates Cr., Weaver Cr., (upper) Bowron R., Portage Cr., (upper) Pitt R., Seymour R., Stellako R., Nadina R., Chilko R., (middle) Shuswap R. and Raft R.; (7)jacks, 1963 - Seymour R., Taseko R., Adams and Little Rs., Nadina R., Gates Cr., Chilko R. and Raft R.; and (8)jacks, 1964 - Weaver Cr., Tachie R., Horsefly R., Chilko R., Seymour R., Gates Cr., Gluskie Cr., Stellako R. and Nadina R.

...14/3 (1)1964 jacks and adults - Birkenhead R. and Little Horsefly R.; (2)1965 jacks - Cultus L. and Adams, Birkenhead, Seymour, Chilko, Stellako and Bowron Rs.; (3)1965 adults - Horsefly, Middle and Adams Rs.; (4)1966 adults - Adams R.; (5)1945-46 and 1955-57 adults - Skeena system; (6)1949 adults - Stamp Falls; and (7)Skeena adults - Babine R. and Alastair L. (1957); Skeena system (1959); Babine fence and Babine system (1960-62); Alastair L., Lakelse system, Sustut L., Stephens L. system, Kispiox R. system, Johanson L., Bear L. and Babine L. (1963); Skeena system, Johanson L., Alastair L., Sustut L., Asitka L., Swan L. system, Sicintine L., Slamgeesh L. and Clear Cr. (Kitsumkalum system) (1964).

...14/4 (1)1964 - Babine R. and Rivers In. (Owikeno), the latter from the H/S salmon homing experiment; (2)1965 - Skeena and Babine systems, Nanika R., Kitwanga R., Stephens L. system, Johanson L., Onerka L., Slamgeesh L., Sustut L., Bear L., Alastair L., McDonell L. and Kitsumkalum system; (3)1966 - Falls Cr. (Swan L.), Scully Cr., Williams Cr., Babine R. and Sicintine R.; and (4)1967 - "Tally Cr." (noted as being in Babine system), Tachek Cr., Twin (Twain) Cr., (upper) Babine R., 9-Mile Cr., Sockeye Cr., Morrison R., Fulton R., Shass (Grizzly) Cr., (lower) Babine R., Tahlo Cr., Pierre Cr., 4-Mile Cr. and 6-Mile (Gullwing) Cr.

...15/1 (1)1968 - Babine spawning grounds; (2)1969 - Great Central L., Morrison R., Skeena R., Fulton R., Babine L., (upper) Babine R., Pinkut Cr., and Fulton spawning channels; and (3)1970 - tagged sockeye from H. Smith's racial study of Fulton, Pinkut and Babine R. stocks.

...15/2 (1)1970-71 racial study of Babine stocks (cont'd); (2)1971 pin tag recoveries at Babine fence; (3)1958 juveniles - Babine L. (fry and smolts) and Hooknose Cr. (smolts); (4)1959 juveniles - Babine L. (fingerlings), Hooknose Cr. and Stamp R.; (5)1960 smolts - Babine fence, Hooknose Cr., Owikeno L., Sakinaw L. (fry also), and Fraser and Shuswap systems; and (6)1961 smolts - Nilkitkwa L., Hooknose Cr. and Cultus L.

...15/3 Smolts: (1)1962 - Seton L., Babine fence, Chilko R. and Cultus L.; (2)1963 - Stuart L., Chilko R., Cultus L. (with 2 year olds), Quesnel R., Babine system, Lakelse system, Skeena R. at Kitsumkalum R. and Great Central L.; (3)1964 - "Big Shuswap", Chilko R., Morice R., Robertson Cr., Wannock R., Chilko L., Babine L. and Babine R.; (4)1966 - Babine R.; and (5)1967 - Owikeno L. (Para.), Babine system and "special study of Babine smolts".

...15/4 Smolts: (1)1967 - Auke Cr. and Karluk L. (Alaskan para. samples); (2)1968 - Babine system (including para. samples and 2 year olds) and USSR; and (3)1969/70 - Babine system.

...16/1 (1)1971 smolts - Babine system; (2)1971/72 smolts - Robertson Cr. and Great Central L.; (3)1972 smolts - Babine system; and (4)1964 body position samples from adults - 4-Mile Cr., 15-Mile (Pinkut) Cr., Tahlo Cr., Copper (Zymoetz) R., Johanson L., Asitka L., Alastair L., Kitsumkalum L., Swan L., Stephens L., Nanika R., Morice R., Skeena R., Fulton R., Morrison R., Williams Cr., (lower) Babine R., Skeena T.F., Fraser R. and Area 29.

AA/16/2 Sockeye, pink and steelhead adults: (1)1964 body position samples from sockeye (cont'd) - Pierre Cr., (upper) Babine R. and Skeena R.; (2)1964 body position samples from pinks - Glendale R., Skeena R., Alaska and Area 8; (3)sockeye - Canyon Is. fishwheel in Alaska (1952 and 1955-58; the cards have associated length, age and circuli data) and Nakina R. weir (1957-58); (4)steelhead - Vedder R., "Shetlins Bridge" and (Big) Qualicum R. (1951-54); (5)steelhead - Area 29 (1957) and Skeena R. and Canadian H/S samples (1958); and (6)steelhead - Campbell R., Little Qualicum R., (South) Alouette R., Great Central L. and Skeena T.F. (all 1959), Quatse R. (1960) and Skeena T.F. (1960-61).

AA/16/3 (1)Steelhead - Puntledge and Kispiox Rs. (1961-62), Skeena R., including Skeena T.F. (1962-63), Area 5 (1963), Skeena R. and Skeena T.F. (1963 and 1965), Babine system (1967), Skeena system (1968) and miscellaneous locations (1970); and (2)mixed species from Kootenay L. (1966-68).

AA/16/4 (1)Mixed spp. from Kootenay L. (1966-68) (cont'd); and (2)Canadian H/S samples of pinks (1955, 1957), coho (1956-57), sockeye (1957) and chum (1957).

AA/17/1-17/4: Samples from Canadian vessels of the H/S salmon program (cont'd). Some card groups are labelled "Research Vessels" and others have the vessel name. Some were labelled as being sampled for parasitology studies and some were scales from tagged and released salmon:

...17/1 (1)Chinook - 1957; (2)sockeye, pink, chum, coho and chinook - 1958 to 1960, by species and year; (3)steelhead - 1959 and 1960; (4)1960 recoveries of Cdn. H/S tags (mixed spp.); and (5)sockeye - 1961, by vessel.

...17/2 (1)Pink, chum, coho, steelhead and chinook - 1961, by vessel; (2)1961 recoveries of Cdn H/S tags (mixed spp.); (3) mixed spp. from the weatherships at ocean station 'P' - 1961; and (4) mixed spp. from research vessels and weatherships - 1962, by vessel.

...17/3 (1)Mixed spp. - 1962 (cont'd) and 1963; and (2)steelhead - 1962.

...17/4 (1)Mixed spp. from research vessels and weatherships - 1963 (cont'd); (2)samples for identification of immatures of mixed spp. - 1963; and (3)steelhead, pinks and mixed spp. - 1964.

[Note: sequence numbers on the file boxes of scale impressions indicate that there are 5 boxes missing at this location.]

AA/18/1-20/3: Samples from US vessels in the H/S program. Card groups are by vessel:

...18/1 (1)Special studies re: scale reader consistency checks and replicate scales from the preferred area of one fish - 1967 sockeye; (2)mixed spp. scales from recoveries of US H/S tags - 1967; and (3)sockeye - 1955 to 1959, by vessel and year.

...18/2 Sockeye - 1959 (cont'd) and 1960-62.

...18/3 Sockeye - 1962 (cont'd) and 1963-65.

...18/4 (1)Sockeye - 1965 (cont'd) and 1966; (2)US shore samples from Uyak Bay, Alaska - 1956; and (3)mixed spp. - 1956.

...19/1 (1)1956 recoveries of US H/S tags (mixed spp.); (2)mixed spp. - 1957; (3)1957 recoveries of US H/S tags (mixed spp.); and (4)mixed spp. - 1958.

...19/2 (1)Mixed spp. - 1958 (cont'd), including scales from fish sampled for blood; (2)1958 recoveries of US H/S tags (mixed spp.); and (3)mixed spp. - 1959.

...19/3 (1)Mixed spp. - 1959 (cont'd); (2)1959 recoveries of US H/S tags (mixed spp.); and (3)mixed spp. - 1960.

...19/4 (1)Mixed spp. - 1960 (cont'd); (2)1960 recoveries of US H/S tags (mixed spp.); and (3)mixed spp. - 1961.

...20/1 Mixed spp. - 1961 (cont'd).

...20/2 Mixed spp. - 1961 (cont'd) and 1962.

...20/3 (1)Mixed spp. - 1962 (cont'd); (2)1962 recoveries of US H/S tags (mixed spp.); and (3)mixed spp. - 1963.

AA/21/1-22/2: Scale impressions from coastal and freshwater sampling. Note that Alaska is divided into S.E. Alaska, central ("C.") Alaska and western ("W.") Alaska. They respectively correspond to (1)the Alaskan panhandle, (2)the reach from Cape Spencer to Kodiak Is. and (3)the Alaskan Penin., Aleutian Islands, Bristol Bay and north to Bering Strait. The cards show the exact location:

...21/1 Adult sockeye: (1)1955 - Columbia R. and Alaska (S.E., C. and W.); (2)1956 - S.E., C. and W. Alaska; and (3)1957 - Wenatchee and Okanagan Rs. in Wash./Oregon, and S.E. and C. Alaska.

...21/2 Adult sockeye: (1)1962 - C. and W. Alaska; (2)1963 - Columbia R. and S.E., C. and W. Alaska; (3)1964 - S.E., C. and W. Alaska; and (4)1965 - Stikine R. and C. Alaska.

...21/3 Adult pinks and sockeye adults and smolts: (1)1962 pinks - S.E., C. and W. Alaska and misc. scales from the "Bertha Ann"; (2)1963 pinks - La Conner (Wash.); (3)1963 sockeye - C. and S.E. Alaska; (4)1964 sockeye smolts - Lakelse and Shuswap systems and C. and W. Alaska; (5)1965 sockeye smolts - Babine system and C. and W. Alaska; (6)1965-66 sockeye - W. Alaska; (7)1966 sockeye - C. Alaska; and (8)1966 and 1968 sockeye - S.E. Alaska and Tahltan L.

...21/4 Adult pinks: (1)1955 - La Conner (Wash.) and C. and W. Alaska; (2)1955/56 - S.E. Alaska; (3)1956 - La Conner (Wash.), C. and W. Alaska and Yubetsu R. (Japan); (4)1957 - S.E. and C. Alaska and W. Alaska (including Yukon R. and far north samples); (5)1958 - S.E. Alaska; (6)1963 - Alaska Penin. and Kodiak Is.; and (7)1964 - S.E., C. and W. Alaska.

...22/1 Adult pinks, sockeye and chum: (1)1964 pinks - W. Alaska (cont'd); (2)1965/66 pinks - S.E., C. and W. Alaska; (3)1958 pinks - S.E., C. and W. Alaska, Hokkaido Is. and USSR rivers (Amur, Kukhtui, Tatar, Utoka, Icha and Bol'shaya); (4) 1959 pinks - S.E., C. and W. Alaska and Ozernaya R. (USSR); (5)1960/61 pinks - C. and W. Alaska; (6)1961 sockeye and pinks - Haines (Alaska); (7)1961 pinks - C. and W. Alaska; (8)1955 chum - S.E., C. and W. Alaska and Samish R. (Wash.); and (9)1956 chum - Puget Sd. and S.E., C. and W. Alaska.

...22/2 Adult chum, sockeye and chinook: (1)1956 chum - W. Alaska (cont'd); (2)1957 chum - Skagit Bay, Samish R., Tillamook R. and Columbia R. and S.E., C. and W. Alaska (the latter from Yukon R.); (3)1958/59 chum - S.E., C. and W. Alaska; (4)1960 chum - W. Alaska; (5)1961 chum - S.E., C. and W. Alaska; (6)1962-64 chum - S.E. Alaska; (7)1964 chum - C. Alaska; (8)1965 chum - S.E., C. and W. Alaska; (9)1964 sockeye - Eshamy R. fence (Alaska); and (10)1956 chinook - Karluk, Kuskokwim, Yukon and Unalakleet Rivers.

AA/22/3 Scale impressions: (1)US shore samples of coho - S.E., C. and W. Alaska (1955), Copper R. (Alaska, 1959), Stikine R. (1965) and Washington State (1965); (2)US H/S samples of pinks - 1956 to 1966, by year and vessel; (3)"Japanese H/S" pinks - 1958 (vessels listed are American); and (4)US H/S chum - 1955/56.

AA/22/4-24/3: US H/S samples by vessel and year (cont'd):

...22/4 Chum - 1956 (cont'd) to 1961.

...23/1 Chum - 1961 (cont'd) to 1966, including scales from recoveries of US tags in 1965 and 1966.

...23/2 (1)Steelhead - 1956/57; (2)chinook - 1956/57; (3)coho - 1955/56; (4)mixed spp. - 1957 (from Teller, Alaska or a vessel called "Teller") and 1968; and (5)sockeye - 1963 and 1968.

...23/3 (1)Sockeye - 1963; and (2)mixed spp. - 1964.

...23/4 (1)Mixed species - 1964/65; and (2)recoveries of US H/S tags - 1964 and 1967 (mixed spp.).

...24/1 Mixed species - 1967/68 and 1971/72.

...24/2 Mixed species - 1966, 1969/70 and 1972.

...24/3 (1)Mixed spp. - 1965/66; and (2)recoveries of US H/S tags - 1966/67 (mixed spp.).

AA/24/4 (1)US H/S samples (mixed spp.) by vessel and year - 1965 (cont'd) and 1966; (2)recoveries of US H/S tags - 1965 (mixed spp.); (3)Japanese H/S samples of sockeye, by year - 1955 to 1958; and (4)sockeye from Japanese mothership fishery ("Jinyo Maru") - 1958.

AA/25/1 Japanese H/S samples of sockeye by vessel and year - 1958 to 1963.

AA/25/2 (1)Japanese H/S chum - 1956; (2)chum from Hokkaido Is. and various vessels - 1957/58; (3)chum from various vessels and Nono and Ztorofu Rs. - 1959; (4)chum, filed by Japanese vessel - 1960 and 1963; (5)chum from Tokachi, Ishikari and Nishibetsu Rs. (1957), Abashiri, Tokoro and Shari fisheries (1958), Shibetsu, Yubetsu, Ishikari and Tokachi Rs. (1958), by Japanese vessel (1958), Shibetsu and Abashiri Rs. (1959), Kamchatka R. (1957-58) and Kukhtui (Kukhtuy?), Bol'shaya and Amur Rs. (1958); and (6) sockeye from L. Dalnee (Kamchatka) - 1957.

AA/25/3 (1)Japanese H/S pinks, by vessel - 1956 to 1960 and 1962. Also from Shari, Tokoro and Abashiri fisheries and Yubetsu R. (1957) and Siniri, Hokkaido and Shari fisheries (1958); (2)Japanese shore samples of chum - Shari, Tokoro and Abashiri offshore fisheries (1958) and Abashiri, Tokachi, Ishikari, Uebetsu and Shibetsu Rs. (1959); (3)Japanese shore samples of pinks - Shibetsu R. (1959); (4)Japanese H/S coho, by vessel - 1956/57; (5)USSR samples of coho, pinks and sockeye, probably from Kamchatka - 1957; and (6)Japanese H/S, by vessel - 1958/59 (mixed spp.).

AA/25/4 Japanese H/S samples, by vessel for 1959 (cont'd) - mixed spp., including masu.

AA/26/1 Japanese H/S samples, by vessel - 1960/61 (mixed spp.).

AA/26/2 (1)Japanese H/S samples, by vessel - 1961 (cont'd) and 1962; and(2)USSR samples - 1959 chum from Sea of Okhotsk, Ozernaya R. and Bol'shaya R., 1958 sockeye from Bol'shaya, Dal'nyaya and Blyinyaya Rs., 1959 sockeye from Ozernaya and Bol'shaya Rs., parasitology samples of sockeye smolts from Karymiskii (Karymai?) Springs, Bol'shaya R. and W. Kamchatka locations (1965), and 1958 coho from Kukhtui (Kukhtuy?), Bol'shaya and Kamchatka Rs.

AA/26/3 US shore samples of sockeye (many were para. samples): (1)1957 - C. and W. Alaskan locations; (2)1958 and 1959 - Columbia R., Stikine R. and S.E., C. and W. Alaska; (3)1960 - C. and W. Alaska; (4)1961 - S.E. Alaska, Haines (Alaska), Copper R. (Alaska) fishwheel and W. Alaska; and (5)1962 - Copper, Branch and Kvichak Rs.

AA/26/4 Miscellaneous scale impressions:

.......Sockeye - Babine L. (1958, adults and smolts), Tofino (1967), Somass R. (1961), ocean station 'P' (1961 and 1964) and Copper R., Alaska (1966)

.......Pinks - Babine L. (1958), Kitwanga R. fry (1958), Area 7 (1963) and North Harbour R. fence in Newfoundland (1964).

.......Chum - (1)smolts from various marine locations in Areas 3-5, 12, 14 and 25 (1955), Area 8 (1963) and Georgia Str., Area 28 and Area 29 (1965); and (2)adults from Qualicum R. (1966), Rosewall Cr. (1968) and Great Central L. (Robertson Cr. hatchery?) (1971).

.......Coho - (1)smolts from Kispiox R. (1957), Hooknose Cr. (1960), Chef (Cook) Cr. (1964), Coal Harbour (1951) and Stamp R. (1960); and (2)ocean fish or matures from Babine L. (1958), station 'P' (1959-60, 1964), Windy Bay, Nalau Pass. (1963), Albert Head (1962), Stamp R. (1961), Kyuquot Chan. (1969) and the Gabriola Is. area (a killer whale kill) (1975).

.......Chinook - (1)smolts from Prince George (1960), Kitwanga R. (1957) and Kispiox R. (1959); and (2)ocean fish or matures from Ucluelet, Cape Scott and Albert Head (1962), Cowichan Bay (1963), Area 16 (1967), Campbell R. (unknown year), Somass R. (1961), Fraser T.F. (1968) and off Campbell R. (a killer whale kill) (1975).

.......Masu (1959-61) - various locations on or near Hokkaido Is.

.......Kokanee - Babine L. system (1957-59), Nilkitkwa L. (1957-58), Bear L. (1958), Brannen L. (1963) and Cowichan L. (1974).

.......Steelhead - scales from Vedder R. (1951), "Shellers Bridge" (1952), Qualicum R. (1954), Kispiox R. (1962), Somass R. (1969) and Areas 3-4.

.......Rainbow trout - Pavillion Cr. (1952), Fawn L., Babine L. (1958), Barsby L. (1968), Northwest Bay (1970), Nahmint L. (1969) and Loon L. (1971).

.......Cutthroat trout - Port John L. (1951), Hennan L. and Silver Cr., Calif. (1965), Gabriola Is. (1958), Brannen L. (1963), Cameron L. (1960), Fanny Bay (1960) and Quennell L. (1963).

.......Brown trout - Cowichan R. (1963) and Cameron L.

.......Dolly Varden - Port John L. (1951).

.......Lake trout - Babine L. (1958).

.......Whitefish - Babine L. (1958), Area 4 (1971), Aishihik L. in Yukon and "Yukon" (1972).

.......Bass - Skeena R. (1958) and Yellow Pt. (1959).

.......Order Perciformes - Kildonan L.

......."Sucker" - Babine L. (1958).

.......Squawfish - Babine L. (1958).

.......Gray cod (Pacific cod), 1957 to 1959 - "Whiterock Bay", Horseshoe Grounds off Reef Is. (Area 2E), Goose Is. Grounds (Area 7), Union Bay (Area 14), Porlier Pass, Port San Juan, Areas 22 and 23 and Bering Sea.

.......Shad - Pt. Grey (1959).

.......Anchovy from salmon stomachs - 1968.

.......Bathylagus milleri - H/S, 1969.

......."Ocean perch" - 1960.

......."Blue perch" (striped sea perch) - Area 16.

.......Pomfret - "G.B. Reed", 1965/66.

.......Whiting - Rachael Islands (1960).

.......Mixed spp., including sockeye and coho, from weatherships at 'P' - 1961, 1964-66 and 1972.

.......Miscellaneous other scale impressions, including (for example) chinook and coho in dogfish stomachs in Georgia Str. (1969), "LA" from H/S (1958) and one larger group of scale impressions from "whitefish, trout etc." from Aishihik L. in the Yukon and just "Yukon" (1972).

AA/27/1 Mounted scales and tracings of circuli from cutthroat and squawfish (?). Probably sampled at Lakesle L., 1953/54.

AA/27/2 Scales, lengths and weights of salmon tagged in the Butedale (Whale Channel), Dean Chan. and Koeye areas in 1948. Includes location, date and tag number. Species appear to be mostly chum.

AA/27/3 Scales from 1947 chum and some pinks with lengths, weights, sex and locations/dates - Smith In., Rivers In. and various Area 7 and 8 locations. Includes scales from chum that were tagged and released (tag numbers shown).

AA/27/4-27/5: Scales with lengths, weights and sex. Very probably from sockeye:

...27/4 Lowe In. district (1440 fish), probably 1944.

...27/5 Lowe In. proper (400 fish from commercial beach seine catches), 1944.

AA/27/6-27/10 Sockeye scales, with length, weight and sex data:

...27/6 Skeena R. near Glen Vowell and from the Bulkley R. at Moricetown, 1944.

...27/7 Off creeks at Gale Bay, Deer Pt. and Bare Bay (all on the E. coast of Banks Is.), Cridge In., Minktrap Bay and Mikado Bay (all on Pitt Is.), Principe Chan. and Lowe In., 1939.

...27/8 Skeena R. tagging (1384 fish), 1944.

...27/9 Tachek Cr., 1944.

...27/10 Nitinat L. and Alberni In., 1943.

AA/27/11 Scales with weights, species and tag numbers of chinook, coho and pinks tagged and released in Area 1. Unknown year but probably in the 1930's. There is one book and it is labelled "no. 7".

AA/28/1-28/2: Scales with length, species and tag number data from salmon that were tagged and released near the Skeena estuary and in other locations in Areas 3-5. All species are represented but over 90% are sockeye:

...28/1 1945 - 39 books from the "Estep" and "Lady V".

...28/2 1946 - 22 books from the "Lady V" and "Irene May". Includes the "Lady V" log.

** AB **

BILTON REARING EXPERIMENTS

YEARS: 1976-1979

SIZE: 1 box

DESCRIPTION

AB has summaries, data compilations and hatchery records related to three studies. Most of the record group concerns the attempt to accelerate the rearing of coho using heated water and by manipulating photoperiod and feeding. There is also some analogous chinook data. The files have notes on rearing success and costs and also data on subsequent returns. There is one file from a second study which examined the heritability of early maturation. They crossed 1.0 males (jacks) with 1.1 females. The third study was part of an evaluation of the Japanese method of rearing chum fry before releasing: they tested the feasibility of marking the releases by staining the vertebrae with oxytetracycline (OTC).

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Coho / Chum / Chinook

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Mature

Statistical Area

14 (Comox)

Location

Qualicum (Big Qualicum) R. (14) / Rosewall Cr. (14)

Aspect

Acclimation / Body size / Cost analysis / Dissolved oxygen / Escapement / Experimental culture / Feasibility / Feed / Growth / Hatcheries / Incubation / Jacks / Marking / Methodology / Mortality / Selective breeding / Staining / Tagging / Thermal aquaculture / Vertebrae / Water depth / Water temperature

REGISTER: RECORD GROUP AB

AB/1/1 "Jack factor" experiment (progeny of coho crosses of jack males x older females). Feeding and growth records and hatching observations.

AB/1/2 Accelerated and normal coho releases, June 1978. Final summaries of escapements and Rosewall Cr. water volume and "dry period" records.

AB/1/3 Accelerated coho - summary of final release, 1977-1978.

AB/1/4 Chum feeding and marking experiments (feasibility of OTC marking of vertebrae) to evaluate contribution to escapement of fish reared in a Japanese style hatchery.

AB/1/5 Expense of oil heated water and cost of re-use of water in accelerated coho experiments, 1977-1978.

AB/1/6-8 Accelerated coho culture, tagging and recovery data, 1977-1978.

AB/1/9-12 Normal culture of coho - tagging, release and recovery data, 1976-1979.

AB/1/13 Summary of final release, June 24-27, 1977. Also, data on oil heating of water and incubating eggs in trays and gravel.

AB/1/14 Accelerated coho - tagging summary, 1977.

AB/1/15 Final summary of accelerated coho experiment (general).

AB/1/16 Coho tag and pin recovery data, 1976-1977, and smolt growth records.

AB/1/17 Accelerated coho culture data, growth records and experimental design.

AB/1/18 Logs, procedures for obtaining oxygen concentrations and tables of measures and equivalents used at T. Bilton's fish culture facility at Qualicum R. where rearing of coho and chinook was accelerated using heated water, 1976-78.

** AC **

T. BILTON COLLECTION: SAMPLING AND SCALE DATA

YEARS: 1912-73

SIZE: 53 boxes

DESCRIPTION

This is a very large record group of data collected by T. Bilton's investigations in the 1950's to 1970's. We have divided the material into eight sub-groups:

1. Juvenile samples: Primarily lengths, weights and scale measurements. Some files have scale impressions. There are some files on the use of scale characters in identifying juvenile salmon species and some more on an experiment to assess the effect of feeding and photoperiod on circulus formation in juvenile sockeye.

2. High Seas samples: Mainly lengths, weights, ages, sex compositions and scale measurements. Part of the data is for racial studies (particularly on chum) using scale characters, meristics and maturity data (gonad to body weight ratios) to estimate broad geographic origins. Several files have tagging and catch data also.

3. Inshore samples, excluding samples caught in research operations: This is the largest sub-group and has been further divided by species in the Table of Contents. It is mostly sampling data (lengths, weights, conditions and ages) and scale measurements.

4. Test fishing samples: The same type of data as in the preceeding sub-group. Most samples were from Nass, Skeena and Fraser R. test fishing, with some High Seas test fishing samples.

5. Adult salmon caught in inshore and freshwater research operations: These data come from tagging and marking programs, experimental netting and trapping and stream surveys and fence operations. Again, it is largely sampling data but includes related data such as fence counts, catches, tagging data and tag recovery data.

6. Racial studies: This is a sub-group of data dealing with efforts to distinguish the origins of ocean salmon using scale characters, meristics and morphometry. Most of the work was part of the High Seas (H/S) program and compared H/S samples with inshore or freshwater reference samples from around the N. Pacific basin.

7. Kokanee and non-salmon (including steelhead): This is largely sampling and scale data for the following (in order of descending frequency of occurence): steelhead, kokanee, trout (including cutthroat), Dolly Varden, gray cod and whitefish. The steelhead files also contain data on H/S catches and tagging/tag recovery data.

8. Miscellaneous: Publications (rough and final drafts), correspondence, sampling instructions, fishery regulations, data processing codes and general information on scale studies comprise a large part of this sub-group. The general information on scale studies includes reader tests, scale vs. otolith aging comparisons, photos and the use of scales to identify salmon species. Other files have maps, historical data, sports fishing information, run forecasts and experimental data (e.g. on sockeye x kokanee crosses, on aspects of fish culture, and on feeding/photoperiod effects on circuli formation.)

[Note: The term "all species" in the Register refers to the five North American salmon species. "WCVI" is an abbreviation used for the W. coast of Vancouver Is. and "H/S" is short for the High Seas.]

Table of Contents (Subgrouping by Topic):

1. Juvenile samples: 1/26,35,39; 3/47-50; 5/53; 7/41-43; 9/4-6; 10/19; 11/23,26,34; 12/27,33; 13/1,27,28,34,36; 15/3-6,8,10,14,24,25,29,31-33; 16/53-55; 23/52-53; 25/8-9; 28/49-50; 30/3; 34/35-37; 38/43,44; 40/6; 41/1,4; 47/24.

2. High Seas samples: 2/23,38-41,43; 3/4,32-34,40,44; 5/26,42,43; 7/28-31,37,38; 10/1; 15/34,35,37; 16/8,48; 17/1,3-18,20-34,36-38,40-43; 18/50,51; 19/1-14; 20/2; 21/1-8; 22/1-8,10-12,13-16; 23/44-47,49-50; 24/1-16; 25/18; 26/1-13,15; 27/1-9,11-14,16,19,20; 28/42; 29/2,4-12; 36/24; 37/50; 40/22-24; 41/2,3,8; 42/18; 43/1-4; 44/1-4; 45/1-3; 46/1,13-18; 47/1,2,10-14,23,25-30; 48/1-6,11-24; 49/1-4,6-18; 50/1,2,5-8,10-12; 51/1-10; 52/1-10; 53/1-6,8-10,12.

3. Inshore data: commercial catch samples or undesignated (may be from experimental fishing - see 5. below):

Sockeye: 1/9-11,16,19,20,22-24,29-32,34,36-38; 2/1-7,10-17,25,26,28-30,32,41,42,50; 3/4-7,9,11,12; 4/1-6,8,9,11-19,; 5/40,41,54-59; 6/1-18; 7/34,38-39,46-50; 8/1-3,5-12,43-49,52,53; 9/1-3,7; 11/20-28,30-32; 14/1-11; 16/7,57,58; 18/1-17; 20/3,24-41; 23/48,54-68; 25/1-7,10,12,13,46-54; 28/1-9,51-53; 31/8-19; 32/9,12-25; 33/1-14; 34/18,21-24,26-32,64-70; 35/1-6,9-30; 36/19-22,28-41; 37/12-34,52-55; 38/1-10,38,49; 40/7-9; 41/10; 42/1,6; 47/3,7; 53/7.

Chum: 1/16,20,22,28; 2/8,19-21,33; 3/4,13-20; 4/3,7,20,21,23-33,35-39,41-44; 5/54; 6/19-30,32-48; 7/46-50; 8/13-42; 9/2,3; 14/12-35; 16/31-47,49-52,57,58; 20/42-58; 23/48,56,57,59; 25/31-45; 28/6-23,51,52; 31/1-7,20-24,; 32/10,13-17; 33/15-27; 34/21-24,33,49-63; 35/5,6,31-39; 36/1-7,21,22,26,42-57; 37/13-16,34-42,52-54; 38/11-26,49; 39/38; 40/8,9; 46/1,3-12; 47/3,5,7,16-20; 49/5.

Pink: 2/41; 3/4,22-24,35-39; 4/3; 5/2-22,39,54; 7/1-3,7-23,34,47-50; 9/2-3,35-48; 11/29; 14/36-52; 16/57,58; 18/18-33; 20/59-63; 23/1-15,48,56,57,59; 25/19-30; 28/6-9,24-37,51,52; 31/25-30; 32/1-8,13-17; 33/28,29; 34/1-17,21,22,33,42-48; 35/5,6,15; 36/8-17,21,22,58-60; 37/1-10,13-16,43-49,52-54; 38/27-37,49; 40/18; 41/6; 42/2-5; 43/1-4; 47/7.

Coho: 1/16,22; 2/9; 3/25-28; 5/23-25,33,54; 6/49-59,61,62; 7/47-50; 9/2,3,17-34; 10/7,10,13,14,19,22,24-27,29,32,33; 16/15-30,57,58; 18/34-37; 20/4-21; 23/16-34,57,59; 25/16; 28/40; 32/13,17; 34/41; 35/5,6; 37/11; 38/40-42,45,46,49,50,52; 39/1,13-32; 47/7.

Chinook: 1/22; 3/29-31; 5/32,45-49,54; 7/24-27,32,33,47-50; 9/2,3,9-17,28; 10/2-6,8,9,11,12,15-19,21,23-30,33,34; 16/1-6,57,58; 18/38-49; 23/35-43,57,59; 32/11,13,17; 35/5,6; 37/11; 38/49,51,54-58; 39/2-12,33-37.

Steelhead: 23/44-47; 25/28; 36/18.

Unknown: 1/25.

4.Test fishing samples: 2/18,22,27,34-39,45; 3/8,46; 4/10,22; 5/1,57,59; 6/44-46,60; 7/4-6; 8/4,51; 12/21,25; 13/7,23,39; 16/10; 20/1; 23/60; 25/17; 28/39,41; 35/8; 36/27; 41/5,11; 42/7; 48/25.

5. Adult data from inshore and freshwater research operations (some of these files actually belong in 3. above): 1/4,5,7,8,12-18,21,24,26,33; 2/24,31,44; 3/1,10,12,21,41-43,45,46; 4/34,40; 5/26,34-38,44,50-52; 6/8,31; 7/1,4-6,35,39,40,45,46; 8/15-49; 9/8; 10/20,35-47; 11/1-19,35-40; 12/1,2,4-20,22-26,34-38; 13/2-6,8-22,24-26,29-33,35,37,38,41-44; 15/1,2,7,9,11-13,15-28,30; 16/9,11-14; 17/19,35; 22/3-5,9-11,13; 24/1-16; 25/11,14,15; 26/4,6,9,11; 27/2-10,12,14,15,17,18; 28/37,40; 29/1,7,9,11,12; 34/19; 38/51; 39/1,13,22-32; 40/15,17; 41/9; 42/14; 45/4; 34/19,38,39; 38/51; 39/1,13,22-32; 40/1-4,15-17; 41/1,7,9; 47/9,15,19,20; 48/8-10; 50/3; 51/1.

6. Meristics/Racial studies: 3/2,40; 11/33; 17/19,39; 26/14; 28/43-48; 29/3; 30/8,10; 38/53; 39/22-32; 40/22-25; 41/1; 42/12,17; 44/2-4; 47/26; 48/1-3,17-19; 49/19; 50/4,5,9.

7. Non-salmon (including steelhead) and kokanee: 1/21,27,33; 2/34-41,45; 5/27-31,34-38,42-44; 7/36,44; 12/28,38; 15/24-26,30,31,36; 16/10; 17/3-14,20-26; 18/50; 19/3-10; 20/1; 21/3-5,8; 22/1-5; 23/44-47; 24/4; 25/18; 28/4,38,39,41; 29/2,13; 30/5,10; 34/34; 36/18; 37/51; 38/39,47,49; 40/16; 53/6,12.

8. Miscellaneous: 1/1-3,6; 2/46-49; 3/3; 7/45; 8/50; 10/24,31; 12/3; 13/48; 15/36; 16/56; 17/1,2; 20/22; 22/3-5; 23/51; 26/14; 29/13-16; 30/1-5,7,9; 34/20,25,34,38,39; 35/7; 36/23,25; 38/47; 40/1-5,10-16, 19-21; 41/1,7; 42/8-11,13-16; 45/4; 46/2; 47/4,6,8,21,22; 48/7; 53/11,13.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Kokanee / Steelhead / Masu / Salmon / Fish

Life Stage

Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

All B.C. Areas / Alsek-Taku-Stikine / Yukon River

Location

H/S / Station 'P' / Japan / Uebetsu R. (Japan) / Tokachi R. (Japan) / Sea of Okhotsk / Kamchatka (USSR) / USSR / Kamchatka R. (USSR) / L. D'alnee (USSR) / Bering Sea / Alaska / Adak Is. (Alaska) / Kiska Is. (Alaska) / Bristol Bay (Alaska) / Wood R. (Alaska) / Kvichak R. (Alaska) / Naknek R. (Alaska) / Egegik R. (Alaska) / Ugashik R. (Alaska) / Branch R. (Alaska) / Nagashik R. (Alaska) / Chiniak R. (Alaska) / Eshamy R. (Alaska) / Alaska Penin. (Alaska) / Kodiak Is. (Alaska) / Frazer R. (Alaska) / Red R. (Alaska) / Fish R. (Alaska) / Karluk R. (Alaska) / Chignik R. (Alaska) / Cook In. (Alaska) / Kenai R. (Alaska) / Copper R. (Alaska) / Prince William Sd. (Alaska) / S.E. Alaska (Alaska) / Portlock Banks (Alaska) / Yakutat (Alaska) / Ketchikan / Yukon / Great Slave L. (NWT) / Hay River (NWT) / Stikine R. (Alaska and Alsek-Taku-Stikine) / Queen Charlotte Islands (54) / Dundas Is. (3) / Arnston Hr. (3) / Union Bay (3) / Nass system (3) / Prince Rupert / Skeena R. (4) / Skeena system (4) / Metlakatla (4-1) / Chatham Sd. (4-1) / Gitnadoix R. (4-2) / Alastair system (4-2) / Lakelse system (4-2) / Lakelse R. (4-2) / Lakelse L. (4-2) / Williams Cr. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Kitsumkalum (Kalum) system (4-2) / Kitwanga system (4-2) / Kispiox system (4-2) / Moricetown Falls (4-3) / Bulkley R. (4-3) / Morice system (4-3) / Morice R. (4-3) / Morice L. (4-3) / Nanika R. (4-3) / Bear system (4-3) / Bear R. (4-3) / Bear L. (4-3) / Asitka L. (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Kisegas (4-4) / Babine R. (Lower) (4-4) / Babine R. (Upper) (4-4) / Babine system (4-4) / Babine L. (4-4) / Basils Pt. (4-4) / Morrison R. (4-4) / Tahlo Cr. (4-4) / Hagan Arm (4-4) / Fulton R. (4-4) / Tachek Cr. (4-4) / Sockeye Cr. (4-4) / Pierre Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / 4-Mile Cr. (4-4) / Endhill Cr. (5) / Mink Trap Bay (5) / Lowe system (5) / Banks Is. (5) / Ogden Chan. (5) / Principe Chan. (5) / Grenville Chan. (5) / Wright Sd. (6) / Whale Chan. (6) / Mathieson Chan. (7) / Klemtu (7) / Milbanke Sd. (7) / Spiller Chan. (7) / Bella Bella (7) / Port John (8) / Hooknose Cr. (8) / Dean Chan. (8) / Burke Chan. (8) / Bella Coola (8) / Atnarko R. (8) / Namu (8) / Evans In. (8) / Rivers In. (9) / Goose Bay (9) / Owikeno system (9) / Inziana (Indian) R. (9) / Smith In. (10) / Boswell In. (10) / Seymour In. (11) / Vancouver Is. (51) / Johnstone Str. (12-13) / Malcolm Is. (12) / Alert Bay (12) / Nimpkish R. (12) / Blackfish Sd. (12) / Glendale R. (12) / Knight In. (12) / Broken Islands (12?) / Growler Cove (12) / Georgia Str. (50) / E. coast of Vancouver Is. (51-1) / Deep Bay (14) / Oyster R. (14) / Rosewall Cr. (14) / Qualicum (Big Qualicum) R. (14) / Mistaken Is. (14) / Northwest Bay (14) / Sabine Chan. (16) / Jervis In. (16) / Lasqueti Is. (16) / Pipers Lagoon (17) / PBS (17) / Nanaimo / Barsby L. (17) / Silva Bay (17) / Porlier Pass (17) / Stuart Chan. (17) / Satellite Chan. (18) / Cowichan Bay (18) / Cowichan R. (18) / Victoria / Gulf (San Juan) Islands (17-18) / Juan de Fuca Str. (19-20) / Sooke / Port San Juan (20) / W. coast of Vancouver Is. (51-2) / Nitinat L. (22) / Great Central L. (23) / Robertson Cr. (23) / Stamp R. (23) / Port Alberni / China Cr. (23) / Alberni In. (23) / Barkley Sd. (23) / Ucluelet / Clayoquot Sd. (24) / Ahousat (24) / Nootka Sd. (25) / Kyuquot Sd. (26) /

Winter Harbour (27) / Coal Harbour (27) / Quatsino Sd. (27) / Howe Sd. (28-2) / Gibsons Landing (16) / Vancouver / Point Grey (29) / Fraser system (29) / Fraser R. (29) / Harrison R. (29-2) / Cultus L. (29-3) / Birkenhead R. (29-4) / Adams R. (29-5) / Shuswap L. (29-5) / Raft R. (29-5) / Chilko R. (29-6) / Horsefly R. (29-6) / Stellako R. (29-7) / Nadina R. (29-7) / Middle R. (29-7) / Kootenay L. (Kootenay system) / Meadow Cr. (Kootenay system) / Washington State / L. Washington / Columbia R. / L. Superior / Newfoundland

Aspect

Abstracts / Age composition / Aging methods / Angling / Body size / Body weight / Calibration / Coastal fisheries / Escapement / Experimental fishing / Experimental research / Fish catch statistics / Freshwater fish / Hybrid culture / Jacks / Length-weight relationships / Light effects / Marine fish / Marking / Otolith reading / Population structure / Racial studies / Regional variations / Reproductive organs / Sampling (Biological) / Scale reading (Ages) / Scale reading (Circuli measurements) / Scale impression cards / Sex ratio / Sexual maturity / Size distribution / Starvation / Statistical analysis / Stock identification / Stomach content / Tagging / Test fishing / Weather ships / Weirs

REGISTER: RECORD GROUP AC

AC/1/1 Lengths and weights, catch statistics, fence counts and progress reports (the latter from the Babine slide site). Also includes a list of freshwater fish donations to Michigan museum. Sockeye and pink, Area 4, 1941-56.

AC/1/2 Index for projection slides(?).

AC/1/3 Forecasting of principal runs of sockeye, Areas 3,4,9,10, 1955.

AC/1/4 Sample data from netting, tagging and marking, sockeye, Area 4, 1944-5.

AC/1/5 Tag recovery cards from tagging at Bear R. fence and length data by age and year from Skeena, Nass, End Hill and Mink Trap, sockeye, Areas 3,4,5, 1944-48.

AC/1/6 Salmon scale data for all spp. (Area ?), 1942-55.

AC/1/7 Stream surveys on Vancouver Island, chum, Areas 21-27 and 40 (W. coast of Vancouver Is. or Johnstone Str.), 1946-49.

AC/1/8 Stream surveys and timing of runs in the Babine system, sockeye, 1944.

AC/1/9 Scale and length data for sockeye samples taken off the west coast of Vancouver Island, 1943-44.

AC/1/10 Age study (general), sockeye, 1944.

AC/1/11 Age study (Lowe In.), sockeye, 1944.

AC/1/12 Scale data from Morice L. and Bulkley R. (Moricetown), sockeye, 1944-47,51.

AC/1/13-15 Age studies for Skeena R. samples, 1944-48, Area 4.

AC/1/16 Scale data from Babine slide area, Smith In., Port John and Dean Channel. Sockeye, coho and chum, Areas 4,8,9, and 10, 1945-49

AC/1/17 Sockeye age study (tagging data), Area 4, 1945.

AC/1/18 Sockeye and chum age study (tagging data), Area 4, 1946.

AC/1/19 Ages and lengths from Skeena R., Nass R. and Mink Trap Bay, Areas 3-5, sockeye, 1947.

AC/1/20 Age study of sockeye and chum, West coast of Vancouver Island, Areas 19-27, 1947-48.

AC/1/21 Tagging and scale data from Skeena and Nass Rs., Areas 3 and 4, all salmon spp. and steelhead, 1948.

AC/1/22 Lengths, weights and ages from Rivers In. (John Gibson collection), sockeye, coho, chum and chinook, Area 9, 1949.

AC/1/23 Lengths, weights and ages from Smith In. sockeye, Area 10 (year?).

AC/1/24-28: 1950 catches, sampled for lengths, weights and ages (unless noted otherwise):

...1/24 Nass R. and Babine fence sockeye (Areas 3-4).

...1/25 Rivers and Smith In. sockeye from Goose Bay cannery (Areas 9-10).

...1/26 Sockeye and coho adults and smolts from Port John (Area 8).

...1/27 Scale impressions and notes re: trout from Port John (Area 8).

...1/28 Johnstone Strait chum (no weights, Areas 12-13).

AC/1/29-33: 1951 catches sampled for lengths, weights and ages (unless noted otherwise):

...1/29 Nass (Area 3) sockeye from North Pacific cannery (scale samples also).

...1/30 Rivers In. (Area 9) sockeye from Goose Bay cannery.

...1/31 Smith In. (Area 10) sockeye.

...1/32 Dean and Burke Chan. (Area 8) sockeye from Goose Bay cannery.

...1/33 Port John sockeye, chum and Dolly Varden (no ages).

AC/1/34 "Means of radii for scales of 5.2 sockeye from the Fraser R. (1916-39)" - 1951.

AC/1/35 Lengths of coho smolts from Coal Harbour (Area 27) - 1951.

AC/1/36 Fraser R. sockeye - daily age composition (1925-37) and seasonal timing of year classes - 1951.

AC/1/37-38: 1952 catches sampled for lengths, weights and ages:

...1/37 Nass sockeye from North Pacific cannery.

...1/38 Rivers In. sockeye (with regressions).

AC/1/39 Data on coho smolts from Babine fence - 1951.

AC/2/1-2: 1952 catches sampled for lengths, weights and ages:

...2/1 Smith In. sockeye from Boswell and Goose Bay canneries.

...2/2 Dean and Burke Chan. sockeye.

AC/2/3 (1)Paper in the series titled "Contributions to Life History of Sockeye Salmon" by D.R. Foskett, 1952; (2)chinook sampling summary for B.C. (1952); and (3)tables showing the 1953 salmon pack (all spp.).

AC/2/4-9: 1953 catches sampled for lengths, weights and ages:

...2/4 Nass sockeye from North Pacific cannery.

...2/5 Rivers In. sockeye.

...2/6 Smith In. sockeye.

...2/7 Dean and Burke Chan. sockeye.

...2/8 Johnstone Strait chum.

...2/9 West coast of Vancouver Is. coho.

AC/2/10-13: 1954 sockeye catches sampled for lengths, weights and ages:

...2/10 Nass R.

...2/11 Rivers In.

...2/12 Smith In.

...2/13 Dean and Burke Chan.

AC/2/14-22: 1955 catches sampled for lengths, weights and ages:

...2/14 Nass sockeye.

...2/15 Rivers In. sockeye.

...2/16 Smith In. sockeye.

...2/17 Dean and Burke Chan. sockeye.

...2/18 Sockeye from Skeena R. test fishing.

...2/19 Skeena chum.

...2/20 Ogden Chan. chum.

...2/21 Johnstone Strait chum (with scale impressions).

...2/22 Pinks from Skeena R. test fishing.

AC/2/23 Lengths and ages of sockeye taken by Japan in the N. Pacific and Sea of Okhotsk - 1955.

AC/2/24 Lengths and ages of sockeye from Lakelse R. fence - 1955.

AC/2/25-39: 1956 catches sampled for lengths, weights and ages:

...2/25 Skeena R. sockeye.

...2/26 Nass R. and Rivers In. sockeye.

...2/27 Sockeye from Skeena R. test fishing.

...2/28 Rivers In. sockeye.

...2/29 Smith In. sockeye.

...2/30 Fraser R. sockeye.

...2/31 Kamchatka R. and L. Dalnee sockeye.

...2/32 Karluk R. and Frazer R. sockeye from Alaska.

...2/33 Skeena R. chum.

...2/34-37 Coho, chinook, sockeye, steelhead and Dolly Varden from Skeena R. Test fishing.

...2/38-39 Pinks and steelhead from High Seas (H/S) test fishing.

AC/2/40 Age sampling of Japanese H/S catches of all salmon spp. and steelhead - 1956.

AC/2/41 Lengths, weights and ages of sockeye and pinks from Alaska and Columbia R. - 1956.

AC/2/42-45: 1956 catches sampled for lengths, weights and ages (cont'd):

...2/42 Fraser R. sockeye (for parasitological studies).

...2/43 H/S sockeye taken by US.

...2/44 Sockeye from various Alaskan locations.

...2/45 Dolly Varden from Skeena R. test fishing (no weights).

AC/2/46 Data on sockeye, coho, chum and pinks from Rivers In. and the Skeena R. - 1956.

AC/2/47-49 Rivers In. salmon data (1900-1956) and "B.C. Game Convention" (1954).

AC/2/50 Report on Rivers In. sockeye in the series "Contributions to the life of the sockeye salmon" (1951-57 data).

AC/3/1 Harrison R. and Adams R. chinook spawners - scale impressions and measurements with lengths, weights and ages, 1956.

AC/3/2 Fraser R., Rivers In., Skeena R. and Alaskan sockeye - scale readings and meristic data from 1.2 and 1.3 age groups, 1956.

AC/3/3 Miscellaneous correspondence, 1957.

AC/3/4 Sampling summaries for sockeye, pink and chum, Areas 3,4,7-10, 29 and H/S, 1957.

AC/3/5-12 Lengths, weights and ages for sockeye samples from the following locations, 1957: Nass R., Skeena R., Port John, Rivers In. and Smith In.

AC/3/13-21 Lengths, weights and ages for chum samples from the following locations, 1957: Skeena and Nass Rs., Ogden Chan., "Middle Areas" and Port John, West coast of Vancouver Is., Clayoquot Sd., Johnstone Strait, Fraser R., Great Slave L. and Hay River (NWT).

AC/3/22-24 Lengths, weights and ages for pink samples from the following locations, 1957: Skeena R., Rivers In. and the "Middle Areas".

AC/3/25-28 Lengths, weights and ages for coho samples from the following locations, 1957: "Gulf of Georgia", Juan de Fuca Strait, Sooke traps and the West coast troll fishery.

AC/3/29-31 Lengths, weights and ages for chinook samples from the following locations, 1957: "Gulf of Georgia", Port Alberni and the West coast of Vancouver Island.

AC/3/32-34 Lengths and ages of H/S chum, pinks and chinook, 1957.

AC/3/35-39 Lengths and ages for pinks from the following locations, 1957: Mathieson Chan., Wright Sd., Banks Is., Nass R. and the Queen Charlotte Islands.

AC/3/40 Data for H/S sockeye, pink and chum, 1957: (1)morphometric data (INPFC); and (2)aging and scale readings.

AC/3/41 Juan de Fuca Strait chinook tagging data (lengths, tag nos., etc.), 1957.

AC/3/42 Sockeye lengths and ages from "off-shore" tagging in the Skeena R. area (e.g. Chatham Sd.), Areas 3-5, 1957.

AC/3/43 Sockeye ages from parasitology study in Alaskan rivers, 1957.

AC/3/44 Sockeye ages from Japanese parasitology samples, H/S, 1957.

AC/3/45 Sockeye ages from Alaskan, Washington and Skeena R. parasitology samples, 1957.

AC/3/46 Skeena R. pinks - "off-shore" tagging and test fishing data, 1957.

AC/3/47-48 Coho and chinook smolt lengths from Kispiox R., 1957.

AC/3/49 Chinook smolt lengths from Kitwanga R., 1957.

AC/3/50 Sockeye smolt lengths from Port John, 1957.

AC/4/1-2 Scale measurements from Fraser R. and Rivers In. sockeye, Areas 9 and 29, 1958.

AC/4/3 Sampling summaries for sockeye, pink and chum, Areas 3,4,6,8,9,12 and 13, 1958.

AC/4/4 Sockeye age group summaries with lengths, weights and ages, Areas 3,4,8 and 10-13, 1958.

AC/4/5 Nass R. sockeye age composition, 1958.

AC/4/6 Skeena R. sockeye scale readings (from US impressions), 1958.

AC/4/7-12: 1958 catches sampled for lengths, weights and ages:

...4/7 Nass chum.

...4/8 Sockeye from Dundas Is. and Metlakatla.

...4/9-10 Skeena sockeye, including test fishing samples.

...4/11 Sockeye from "Wales Chan." (Whale Chan.?).

...4/12 Sockeye from Evans In.

AC/4/13-14 Rivers In. and Skeena R. - sockeye sampling summaries, with scale data from US impressions, 1958.

AC/4/15 Smith In. - scale data and sampling summaries, 1958.

AC/4/16-17 Johnstone Str. - sockeye lengths, weights and ages, Areas 12 and 13, 1958.

AC/4/18 Sockeye sampling summaries, San Juan Islands, US , 1958.

AC/4/19 Sockeye weights from China Cr. samples, Area 23, 1958.

AC/4/20-44 Lengths, weights and ages of chum from the following locations, 1958: Queen Charlotte Islands, Skeena R. (includes test fishing), Wright Sd., Principe Chan., Whale Chan., Namu (with length frequencies and catch timing), Bella Bella, Arnston Hr., Rivers and Smith Ins., Johnstone Str. (with spawning ground data), Deep Bay, Northwest Bay, Nanaimo, Mistaken Is., Silva Bay, Satellite Chan., San Juan Islands and Juan de Fuca Strait, Nitinat L., W. coast of Vancouver Is. (Areas 25-26), Howe Sd. (Gibsons Landing) and Fraser R., Areas 1,2,4-10,12-14,18-22,25,26,28 and 29.

AC/5/1 Coho lengths, weights and ages from Skeena R. test fishing, 1958.

AC/5/2-22 (1)Pink lengths and weights, or (2) pink lengths, weights and ages from the following locations, 1958: Fraser R., Johnstone Strait, Rivers In., Bella Bella, B.C. central coast, Whale Chan., Grenville Chan., Principe Chan., Wright Sd., Banks Is., Nass R., Chatham Sd., Queen Charlotte Islands, Skeena R. (with scale tracings) and other Area 4 locations, Areas 1-9,12,13 and 29.

AC/5/23-25 Coho lengths and weights from the Fraser R. and the E. and W. coasts of Vancouver Is., Areas 13,17 and 19-29, 1958.

AC/5/26 Sockeye ages from parasitology sampling in Areas 3,4,9 and 29, on the H/S and in Alaska, 1958.

AC/5/27-31 Gray cod sampling data from Areas 2,5,7,14,17,22,23 and the Bering Sea, 1958.

AC/5/32-33 Chinook and coho lengths, weights and ages from Juan de Fuca tagging, Area 20, 1958.

AC/5/34-38 Sockeye, coho, chinook and steelhead lengths, weights and ages from "outside tagging" off the Skeena R., 1958.

AC/5/39 Pink lengths, weights and parasite data from Portlock Banks, Alaska, 1958.

AC/5/40 Sockeye lengths, weights and ages with annuli and circuli counts and measurements from Johnstone Strait, Area 13, 1958.

AC/5/41 Sockeye lengths, weights and ages from Malcolm Is. and Blackfish Sd., Area 12, 1958.

AC/5/42 Canadian H/S steelhead - lengths and tag nos., 1959.

AC/5/43 Sockeye, chum, coho and steelhead - H/S tagging and recovery records, 1958.

AC/5/44 "Life History Categories of Winter and Summer Steelhead" (age compositions, 1949-1958), Area 29, 1958.

AC/5/45-49 Chinook lengths, weights and ages (with some "grade" data) from the following locations, 1958: Fraser R., E. and W. coasts of Vancouver Is. (troll), Sooke traps, Johnstone Strait and Bella Coola, Areas 8,12 and 17-29.

AC/5/50 "Measurements of spawned chum" from Vancouver Is. samples, Areas 13,14,17,18 and 23, 1958.

AC/5/51 Sockeye lengths, weights and ages from Hooknose Cr. and Atnarko R. spawning ground samples, Area 8, 1958.

AC/5/52 Adams R. sockeye - scale readings and measurements, Area 29, 1958.

AC/5/53 Lengths and ages of sockeye smolts from Hooknose Cr., 1958.

AC/5/54 B.C. sampling summaries for all spp., various locations, 1959.

AC/5/55-56 Sockeye lengths, weights and conditions, Nass R., Area 3, 1959.

AC/5/57-59 Skeena R. sockeye sampling data from commercial catches, test fishing and "outside tagging", Area 4, 1959.

AC/6/1-18 Sockeye lengths, weights and ages (with some estimation of condition) from the following locations, 1959: Wright Sd., Ogden Chan., Banks Is., Principe Chan., mixed locations in Area 6, Whale Chan., Spiller Chan., Bella Coola and Port John, Rivers In., Smith In. (with scale counts and measurements), Johnstone Strait, Sabine Chan., Juan de Fuca Str. and Sooke traps, Alberni In., Winter Harbour and Pt. Grey (Areas 5-10,12,13,16,20,23,27 and 29).

AC/6/19-30 Chum lengths, weights and ages from the following locations, 1959: Fraser R., Gibsons Lndg., Kyoquot Sd., Nootka Sd., Ahousat, Barkley Sd., Port San Juan and Sooke, Satellite Chan., Porlier Pass, Jervis In. and Johnstone Strait (Areas 12,13,16-18,20,23-27 and 29).

AC/6/31 Sockeye lengths, weights and scale counts from Nimpkish R. samples, Area 12, 1960.

AC/6/32 Chum lengths, weights and ages from Knight In., Broken Island and other Johnstone Strait samples, Area 12, 1959.

AC/6/33-35 Chum lengths and ages from Seymour In., Smith In. and Rivers In. samples, Areas 9-12, 1959.

AC/6/36 Chum lengths, weights and ages from Bella Coola and Burke Chan. samples, Area 8, 1959.

AC/6/37-39 Chum lengths, weights, ages and conditions from Spiller Chan., Bella Bella, Klemtu and other locations in Areas 7 and 8, 1959.

AC/6/40-43 Chum lengths and ages from Whale, Principe and Ogden Chans. and other locations in Areas 5 and 6, 1959.

AC/6/44-46 Chum lengths, weights and ages from Skeena R. (including test fishing) samples, Area 4, 1959.

AC/6/47-48 Chum lengths, weights, ages and conditions from Nass R. samples, Area 3, 1959.

AC/6/49 Fraser R. coho lengths, Area 29, 1959.

AC/6/50 Coho lengths, weights and ages from Kyuquot Sd., Area 26, 1959.

AC/6/51 Coho weights from Lasqueti ls. samples, Area 16, 1959.

AC/6/52 Coho lengths, weights and conditions from lower Johnstone Strait samples, Area 13, 1959.

AC/6/53-59 Coho weights and conditions from the following locations, 1959: Growler Cove, Rivers In., Bella Coola, Milbanke Sd. and Whale, Principe and Ogden Chans., Areas 5-9 and 12, 1959.

AC/6/60-61 Lengths of Skeena R. coho (with test fishing samples), Area 4, 1959.

AC/6/62 Coho lengths and weights from Queen Charlotte Islands samples, Area 2, 1959.

AC/7/1 Pink lengths and length frequencies: (1)Fraser R. (IPSFC data); (2)Johnstone Strait; and (3)Washington spawning grounds (WDF), 1959.

AC/7/2-3 Nass R. pinks - lengths, weights and conditions, Area 3, 1959.

AC/7/4-6 Skeena R. (test fishing and "outside tagging"), pink lengths and conditions, Area 4, 1959.

AC/7/7-14 Pink lengths and conditions from the following locations, 1959: Grenville, Ogden, Principe and Whale Chans., Bella Bella, Spiller Chan. and mixed locations in Area 6.

AC/7/15-18 Pink lengths and weights from Rivers and Smith Ins. and Johnstone Strait, Areas 9,10,12 and 13, 1959.

AC/7/19 Pink lengths and conditons from Jervis In., Area 16, 1959.

AC/7/20 Pink lengths, weights and conditons from Port San Juan, Area 20, 1959.

AC/7/21 Pink lengths from the W. coast of Vancouver Island, Areas 21-27, 1959.

AC/7/22-23 Pink lengths, weights and conditions from Pt. Grey and Fraser R., Area 29, 1959.

AC/7/24-27 Lengths, ages, conditions and "grades" (colour) of chinook from the following locations, 1959: Nass R. (and Union Bay), Fraser R. and Areas 3-6.

AC/7/28-31 Canadian H/S sockeye, chum, pink and coho - lengths, ages and tag nos., 1959.

AC/7/32-33 Chinook lengths, weights and "grades" from Georgia Str. and the W. coast of Vancouver Is., Areas 13-27, 1959.

AC/7/34 Skeena R. sockeye and pink lengths (from blood sampling samples), Area 4, 1959.

AC/7/35 Pink lengths from tag recoveries in Areas 8-12, 1959.

AC/7/36 Gray cod lengths and maturity data (IPHC) from Alaskan samples, 1959.

AC/7/37 Japanese H/S sockeye - tag nos. and ages of parasitology samples, 1959.

AC/7/38 Sockeye sampling data from Canadian H/S samples, Alaskan parasitology samples and samples from Fraser R., Skeena R. and Rivers In., 1959.

AC/7/39 Fraser R. sockeye: "Annulus width in the first freshwater year", Area 29, 1959.

AC/7/40 Sockeye ages and scale data from IPSFC for the Chilko, Stellako, Birkenhead, Adams, Raft and Nadina Rs. and Cultus L., Area 29, 1959.

AC/7/41-42 Sockeye smolt lengths and freshwater ages from Hooknose Cr. and Stamp R. samples, Areas 8 and 23, 1959.

AC/7/43 Data on Fraser R. and Cultus L. sockeye smolts, Area 29, 1959.

AC/7/44 Ages of Oyster R. steelhead with scale impressions, Area 14, 1960.

AC/7/45 Computer coding sheets for Salmon Stock Assessment program and INPFC river tagging nos. - sockeye, pink and chum, 1959-60.

AC/7/46 Weighting factors for Nass and Skeena R. sockeye and chum, Areas 3 and 4, 1960-61.

AC/7/47 Sampling summaries for all spp. and all areas by week, 1960.

AC/7/48-50 Salmon Stock Assessment sampling summaries for all spp. from Vancouver, Prince Rupert and "Middle Areas", 1960.

AC/8/1 Lengths of Area 2 sockeye from Prince Rupert sampling, 1960.

AC/8/2 Nass R. sockeye - annuli and circuli counts, Area 3, 1960.

AC/8/3-12 Circuli counts and measurements from sockeye taken in the following locations, 1960: Skeena R. (including Test fishing samples), Prince Rupert, Namu, Bella Bella, Bella Coola, Rivers and Smith Ins. (with notes on scale readings and false checks in marine growth), and Johnstone Str., Areas 2-10,12 and 13.

AC/8/13-14 Circuli counts and measurements from Fraser R. and Quatsino Sd. chum, Areas 29 and 27, 1960.

AC/8/15-42 Chum scale data: no. of circuli and annulus widths, Areas 1-26, 1960.

AC/8/43-49 Sockeye scale data: circuli counts and annulus widths, Areas 6-9, 12,13,16,20 and 24, 1960.

AC/8/50 Salmon Stock Assessment sampling instructions and misc. information for all spp., Areas 1-29, 1959-60.

AC/8/51 Sockeye scale data and catch statistics from Skeena R. test fishing, Area 4, 1961.

AC/8/52-53 Nass and Skeena R. sockeye - annulus and circulus counts and measurements, Areas 3 and 4, 1961.

AC/9/1 Queen Charlotte Islands sockeye - circuli counts and measurements, Area 1, 1961.

AC/9/2-3 Weekly sampling summaries from Prince Rupert, Namu and Vancouver, all spp., Areas 1-29 and H/S, 1961.

AC/9/4-6 Sockeye smolt lengths, weights and scale data from the Fraser R. and Hooknose Cr., Areas 8 and 29, 1960.

AC/9/7 Age composition of Rivers In. sockeye, Area 9, 1957-60.

AC/9/8 Lengths, conditions and scale data from Fraser R. chinook (Fraser R. Board), Area 29, 1960.

AC/9/9 Chinook weights by "grade" (size and colour) for samples taken off the W. coast of Vancouver Is., Areas 21-27, 1960.

AC/9/10-11 Chinook "grades" and length frequency data for Johnstone Strait and Georgia Str., Areas 12-19, 1960.

AC/9/12-16 Chinook ages and length frequencies (with breakdown by flesh colour), Areas 1-5 and 7, 1960.

AC/9/17 Coho and chinook lengths and ages (by gear), mixed Areas, 1960.

AC/9/18 Fraser R. coho lengths and ages (by gear), Area 29, 1960.

AC/9/19 Coho scale readings, W. coast of Vancouver Is., Areas 21-27, 1960.

AC/9/20-21 Coho lengths from Juan de Fuca and Johnstone Straits, Areas 13 and 20, 1960.

AC/9/22 Coho (blueback) samples from the E. coast of Vancouver Is., Areas 13-19, with racial data, scale measurements and summaries, 1960.

AC/9/23-27 Coho lengths from the following locations, 1960: Johnstone Str., Rivers In., Bella Coola and Namu, Areas 6-13, 1960.
AC/9/28 Chinook and coho "grades for sampling" at Namu, 1960.

AC/9/29-34 Coho lengths, weights and ages from Areas 1-6, 1960.

AC/9/35-48 Pink lengths, weights and ages from Areas 1-10,12 and 13, 1960.

AC/10/1 Age composition of H/S coho, 1956.

AC/10/2 Fraser R. chinook - scale impressions, Area 29, 1956.

AC/10/3 Ages of troll-caught chinook in Georgia Str. and on W. coast of Vancouver Is., 1956.

AC/10/4 Fraser R. chinook - lengths, weights, ages and gonad weights, Area 29, 1955-56.

AC/10/5 Fraser R. and Sooke chinook - gonad and stomach sampling data, Areas 19 and 29, 1955-56.

AC/10/6 Ages of troll-caught chinook in Georgia Str. and on W. coast of Vancouver Is., Areas 17-27, 1955.

AC/10/7 Coho sampling data (with age readings) from samples taken in the troll fishery on the W. coast of Vancouver Is. and in Georgia Str., Areas 17-27, 1955.

AC/10/8 Chinook sampling data from the Nanaimo and Cowichan areas, Areas 17 and 18, 1954.

AC/10/9-10 Chinook and coho sampling data (with age readings) from the "Gulf" and "West coast" troll fishery, Areas 17-27, 1954.

AC/10/11 Ages of troll-caught chinook from Georgia Str., Areas 17-27, 1953.

AC/10/12 Ages of marked chinook sampled at Vancouver, Area 29, 1953-54.

AC/10/13 Coho age readings from "Gulf" and "West coast" troll fishery, "A" samples, Areas 17-27, 1953.

AC/10/14-15 Chinook and coho ages from W. coast of Vancouver Is. (WCVI) and Georgia Str. troll fishery, Areas 17-27, 1952.

AC/10/16 Lengths and weights of Fraser R. chinook, Area 29, 1951.

AC/10/17 Ages of WCVI and Georgia Str. chinook, Areas 17-27, 1951.

AC/10/18 Chinook length, weight and scale data from the Sooke traps, Moricetown Falls, Cowichan Bay and the sports fishery at Victoria, Areas 4 and 18-20, 1951-52.

AC/10/19 Misc. chinook and coho scale data: Aging problems, smolts, and "Young Salmon in the Nanaimo Area", Areas 4 and 17, 1950-51.

AC/10/20 Misc. coho tagging data: WCVI (Ucluelet), Skeena, Cowichan, etc., 1950.

AC/10/21 Chinook age composition in Georgia Str. and WCVI fisheries, Areas 17-27, 1950.

AC/10/22 Coho lengths and weights from Prince Rupert sampling, Area 4, 1952.

AC/10/23 Chinook lengths and weights from Prince Rupert sampling, Area 4, 1952-55.

AC/10/24 Sockeye and chinook lengths, weights and ages from the Rivers In. sports and commercial fisheries, Area 9, 1951-55.

AC/10/25 Commercial catch records (monthly and yearly) for chinook and coho, Areas 1-29, 1951-59.

AC/10/26 Chinook and coho average fork lengths for Fraser R. samples, Area 29, 1952-59.

AC/10/27 Chinook and coho average fork lengths for Juan de Fuca Str. samples, Areas 19-20, 1957-59.

AC/10/28 Fraser R. commercial catch statistics (monthly and yearly) for chinook, Area 29, 1951-58.

AC/10/29 Chinook and coho sampling summaries (Prince Rupert), Area 4, 1952-53.

AC/10/30 Average fork lengths of chinook from Sooke trap samples, Area 20, 1958.

AC/10/31 Publication: "Statistics on Salmon Sport Fishing in the Tidal Waters of B.C.", 1953-55.

AC/10/32 Coho sampling records from Fraser R., Sooke and Juan de Fuca Str., Areas 19,20 and 29, 1957-58.

AC/10/33 Vancouver and Prince Rupert sampling summaries for chinook and coho, 1954-55.

AC/10/34 Lengths and weights of red and white chinook from WCVI and Str. of Georgia, Areas 14-27, 1952-56.

AC/10/35-11/36: Scale analyses for US sockeye (unless noted otherwise):

...10/35 Kodiak Is. (Red R.), 1955.

...10/36 S.E. Alaska, 1958.

...10/37 Central Alaska (Copper R.), 1957.

...10/38-41 Cook In. (Fish R.), Kodiak (Red and Karluk Rs.), Alaska Penin. (Chignik Lagoon) and Bristol Bay, 1958.

...10/42 Yakutat, 1959.

...10/43 Cook In., 1958.

...10/44 Cook In. (Kenai R.), 1959.

...10/45-11/4 Chignik Lagoon and Bristol Bay (Kvichak, Naknek, Egegik, Ugashik, Branch and Wood Rs.), 1960.

...11/5 Alaska Penin. (Chignik Lagoon), 1961.

...11/6 Stikine R., 1965.

...11/7-11 Kodiak (Karluk R.), Adak Is., Kiska Is. and Bristol Bay (Wood, Naknek, Egegik, Ugashik and Nagashik Rs.), 1961.

...11/12-17 Cook In. (with age determination data), Chignik R., Bristol Bay (5 rivers), Adak and Kiska Islands (data on immature sockeye) and southern Kodiak Is., 1962.

...11/18-19 Columbia R. and various Alaskan locations, 1963.

...11/20 Sockeye racial studies, S.E. Alaska, 1963.

...11/21-22 Sockeye scale analyses of 1.3's from Bristol Bay and 2.2's from Kodiak Is., 1963.

...11/23 Smolts from various Alaskan areas, 1964.

...11/24 Widths of first year annuli, S.E. Alaska, 1964.

...11/25 Prince William Sd., 1964.

...11/26 Alaskan smolts (parasitology samples), 1964.

...11/27-28 Bristol Bay and Ketchikan, 1964.

...11/29 Pink scale analyses from Kodiak (Chiniak R.), Alaska, 1964.

...11/30-31 Cook In., Chignik Lagoon and Kodiak Is. (Chiniak R.) areas, 1964.

...11/32 S.E. Alaska, 1968.

...11/33 Alaskan sockeye racial studies, 1965-66.

...11/34 Alaskan smolts (parasitology samples), 1965.

...11/35 Pink scale analyses from Alaskan and Lakelse L. samples, Area 4 and US , 1965-66.

...11/36 Alaskan shore samples, 1965-66.

AC/11/37 Sockeye scale analyses from Asian parasitology samples, USSR, 1965-66.

AC/11/38-12/2: Adult sockeye scale data from Babine system:

...11/38-39 Samples and pin-tag recoveries from Morrison R., Fulton R. and Pinkut Cr., 1969.

...11/40 Spawner samples, 1968.

...12/1 Pin-tag recoveries, 1968.

...12/2 Parasitology samples, 1968.

AC/12/3 Salmon net fishing regulatons, all spp., Areas 1-29, 1973.

AC/12/4-20: Scale and otolith data from the Skeena system:

...12/4-5 Sockeye otolith ages from Williams and Scully Crs. and Alastair L., 1967.

...12/6 Coho otolith ages from Scully Cr. samples, 1967.

...12/7 Sockeye circuli counts from spawning stream samples, 1967.

...12/8 Sockeye annuli widths in the first year from spawning ground samples, 1945-65.

...12/9 Sockeye otolith and scale data from Lakelse (Scully and Williams Crs.), 1966.

...12/10 Sockeye smolts - weighted circuli counts, 1967.

...12/11 Sockeye otolith ages (for Calaprice), 1967.

...12/12 Sockeye scale analyses from spawner samples, 1966.

...12/13-14 Upper Skeena sockeye - ages and scale analyses, 1964-65.

...12/15 Skeena sockeye spawners (including Asitka L. sockeye) - ages and scale analyses, 1964.

...12/16 Ages and scale analyses of sockeye smolts from Lakelse and Morice Rs., 1964.

...12/17 Sockeye scale data from Lakelse L. (Williams and Scully Crs.) and a rough draft for publication: "Age, size and sex composition of spawning sockeye at Williams and Scully Crs., 1965" (Coburn and Bilton).

...12/18 Sockeye ages and scale analyses from Alastair L. samples, Area 4, 1965.

...12/19 Sockeye ages and length frequencies (with conversion tables) from Williams Cr. samples, Area 4, 1966.

...12/20 Notes on scales from Skeena R. spawning grounds (sockeye?), 1962-66.

AC/12/21 Pink lengths from Skeena R. test fishing, Area 4, 1966.

AC/12/22-24 Sockeye scale data from the Bulkley R. and the lower and middle Skeena R., Area 4, 1966.

AC/12/25 Sockeye scale data, catch statistics, mean fork lengths, etc., from Skeena R. test fishing and the Babine fence operation, Area 4, 1955-61.

AC/12/26 Scale data from sockeye spawners in the upper Skeena drainage, Area 4, 1966.

AC/12/27 Scale data from Babine sockeye smolts, Area 4, 1966.

AC/12/28 Fork and hypural lengths of kokanee from Kootenay L., 1966.

AC/12/29-31 Babine L. sockeye - scale data from parasitology samples (1965), and age compositions (1962-7), Area 4.

AC/12/32 Skeena R. test fishing - data from scales of jack sockeye, Area 4, 1965.

AC/12/33 Babine R. sockeye smolts (lower trap), scale analyses and frequency data, Area 4, 1965.

AC/12/34 Lengths, weights, ages and scale analyses of jack sockeye from Babine fence, Middle R., Horsefly R. and Adak and Kiska Islands, 1965.

AC/12/35 Williams and Scully Cr. sockeye - otolith ages and length frequencies, Area 4, 1965.

AC/12/36 Rough draft: "The size and sex composition of sockeye in the escapement to Scully and Williams Crs., Lakelse L., 1965" (with data).

AC/12/37 Babine spawning ground samples of sockeye: weighted circuli counts with frequencies and final assessment of sockeye escapements to the Skeena R., Area 4, 1965.

AC/12/38 Kootenay L. kokanee - scale data and impressions, 1965.

AC/13/1 Babine sockeye smolt parasitology samples, Area 4, 1964.

AC/13/2 Babine sockeye otolith readings, Area 4, 1964.

AC/13/3 Skeena sockeye - circuli counts from spawning ground samples, Area 4, 1964.

AC/13/4 Skeena R. sockeye - total lengths, Area 4, 1964.

AC/13/5 Data from pink scales taken in various body zones, Kodiak Is., 1964.

AC/13/6-22 Data from sockeye scales taken in various body zones, Skeena Test Fishing and Skeena spawning grounds, 1964.

AC/13/23-24 Data from pink scales taken in various body zones, Skeena R. Test fishing and Area 8, 1964.

AC/13/25 Pink and sockeye scale data - "Body zones-18 positions", 1964.

AC/13/26 Scale data from pink spawners, scales taken in various body zones, Glendale R., 1964.

AC/13/27-28 Babine sockeye smolt runs with weighted circuli count data, Area 4, 1963.

AC/13/29 Babine sockeye spawners - otolith and scale data, Area 4, 1963.

AC/13/30 Babine sockeye - age composition and circuli counts, Area 4, 1963.

AC/13/31-2 Sockeye scale and otolith data from upper and lower Skeena R., Area 4, 1963.

AC/13/33 Babine sockeye - first year circuli of 1.2's and 1.3's, Area 4, 1962-3.

AC/13/34 Lakelse L. sockeye - smolt circuli counts, Area 4, 1963.

AC/13/35 Lakelse L. sockeye - adult otolith readings, Area 4, 1963.

AC/13/36 Babine sockeye - smolt circuli counts, Area 4, 1962.

AC/13/37 Babine L. sockeye spawners - sample data including otolith readings, no. of freshwater circuli and age compositions, Area 4, 1962

AC/13/38 Bristol Bay sockeye - scale analyses, (ADFG), 1962.

AC/13/39 Sockeye otolith readings from Skeena R. test fishing samples, Area 4, 1962.

AC/13/40 Publication: "Means and Standard Deviations and Numbers in Samples of Circulus and Annulus Counts in Babine Spawning Ground Scales", 1962-3.

AC/13/41-2 Babine fence sockeye - scale data from jacks, Area 4, 1962.

AC/13/43 Lakelse sockeye - age composition from otolith readings, Area 4, 1962.

AC/13/44 Upper Skeena R. sockeye - scale data from jacks, Area 4, 1961.

AC/14/1-52: Commercial fishery data: lengths, ages and scale measures, 1961:

...14/1-11 Sockeye, Areas 5-13,16,24,27.

...14/12-35 Chum, Areas 1-10,12-16,18,20,23-26.

...14/36-52 Pink, Areas 1-10,12,13,16,20-27,29.

AC/15/1 Babine fence chinook - scale data, Area 4, 1961.

AC/15/2 Sockeye age determinations from Moricetown Falls samples, Area 4, 1961.

AC/15/3-7 Babine sockeye smolts - scale data, Area 4, 1960.

AC/15/8 Babine sockeye smolts: "Circulus counts weighted to abundance in each week", 1959.

AC/15/9 Alastair L. and Gitnadoix R. - sockeye scale data, Area 4, 1959.

AC/15/10 Babine sockeye smolts - lengths, Area 4, 1959.

AC/15/11 Babine fence sockeye - lengths and ages, Area 4, 1959.

AC/15/12 Alastair L. - sockeye scale data, Area 4, 1957.

AC/15/13 Babine fence sockeye - frequency of freshwater circuli in 1.2's, Area 4, 1957.

AC/15/14 Kitwanga R. sockeye - smolt lengths, weights, ages and stomach contents, Area 4, 1957.

AC/15/15-19 Sockeye scale data from the following locations: (1)Alastair L., lower Skeena R., Bulkley and Nanika Rs. and mid-Skeena R. (Kispiox), 1955; and (2)Bulkley and Nanika Rs., 1956.

AC/15/20 Babine fence sockeye - freshwater growth of marked adults, Area 4, 1950.

AC/15/21 Babine sockeye - age study and scale data, Area 4, 1949.

AC/15/22 Bear L. sockeye - scale data, Area 4, 1948.

AC/15/23 Sockeye scale data from Kispiox and Kitwanga R. samples, Area 4, 1945-46.

AC/15/24-25 Babine L. sockeye fry and kokanee - circuli frequency data and fry scale data from the Hagan Arm and Basils Pt. areas, Area 4, 1958.

AC/15/26 Kokanee scale data from Tachek Cr. samples, Area 4, 1958.

AC/15/27 Babine fence sockeye - scale data, Area 4, 1958.

AC/15/28 Babine L. "mixed" spp. - weights and stomach contents, Area 4, 1958.

AC/15/29 Babine and Bear L. sockeye smolts - scale data (including impressions), Area 4, 1958.

AC/15/30 Sockeye and trout scale data from Moricetown Falls, Bear L. and Sustut L. samples, Area 4, 1958.

AC/15/31 Babine sockeye fry, sockeye smolts and kokanee - scale data and age compositions, Area 4, 1958.

AC/15/32 Great Central L. sockeye - smolt lengths and weights, Area 23, 1958.

AC/15/33 Babine sockeye smolts - circuli counts and scale radii (ratios and frequencies), Area 4, 1958.

AC/15/34 Scales from H/S catches by the "G.B. Reed", 1965.

AC/15/35 "G.B.Reed" cruises I and II, "on board interpretations", H/S, 1966.

AC/15/36 Weights of eggs and fry from sockeye/kokanee crosses (including queries and hypotheses for publication or experiment), 1966(?).

AC/15/37 Canadian H/S tagging - scale nos. of sockeye released by the "Western Crusader", 1960-62.

AC/16/1-6 Chinook lengths, ages and scale measurements from commercial catch samples, Areas 1-5 and 7, 1961.

AC/16/7 Sockeye jacks - IPSFC scale cards and data, Area 29, 1961.

AC/16/8 Sockeye and chum lengths and weights from "Stn. P" (H/S) samples, 1961.

AC/16/9 Sockeye ages and scale data, Copper R., Alaska, 1961.

AC/16/10 Steelhead lengths from Skeena R. test fishing samples, Area 4, 1961.

AC/16/11-14 Scale data and lengths from Adams R., Harrison R. and Cultus L. sockeye (including jacks), Area 29, 1961.

AC/16/15-30 Coho lengths, weights and ages from commercial catch samples, Areas 1-5,7,9,12-20,27 and 29, 1961.

AC/16/31-47 Chinook lengths, ages and grades from commercial samples, Areas 2-10,12-14,16,18,20 and 23, 1962.

AC/16/48 Pink lengths and ages, Canadian H/S samples, 1962.

AC/16/49-52 WCVI chum lengths and ages, Areas 19-26, 1962.

AC/16/53 Hooknose Cr. (Port John) sockeye - smolt lengths, weights, ages and scale data, Area 8, 1962.

AC/16/54-55 Cultus L. and Chilko R. sockeye - smolt lengths, weights, ages and scale data, Area 29, 1961-2.

AC/16/56 Sampling data on computer coding sheets, 1962.

AC/16/57-58 Sampling summaries for all spp., Areas 1-29, 1962.

AC/17/1 Computer coding sheets with scale data from H/S salmon, 1966.

AC/17/2 File report: "Comparison of egg size, hatching time and size of progeny produced from sockeye salmon crosses", 1970.

AC/17/3-8 Canadian H/S sampling data (with scale data) for all salmon spp. and steelhead, "Western Crusader", 1960-61.

AC/17/9-14 Canadian H/S scale data for all salmon spp. and steelhead, 1961.

AC/17/15 Canadian H/S chum - "scale nos. at release", 1960.

AC/17/16-18 Canadian H/S data - tag nos., ages and weights for pink, chum and chinook, 1960.

AC/17/19 Misc. scale data for sockeye from Alaska, Rivers In. and the Lakelse system, 1955. Includes meristics data (gillraker counts).

AC/17/20 Canadian H/S steelhead - lengths and locations of capture, 1960.

AC/17/21-26 Lengths, weights and ages for all salmon spp. and steelhead, H/S, 1961.

AC/17/27 Alaskan and H/S samples from FRI - "zero age summary", all spp., 1962-7.

AC/17/28 American H/S pinks - scale data with circuli counts (from Meristics lab), 1966.

AC/17/29 Canadian H/S - sockeye scale readings and tag nos. from "G.B.Reed" cruises in Oct./Nov., 1964.

AC/17/30-31 American H/S tagging (FRI) - sockeye and pink ages, scale data and measurements, 1965.

AC/17/32 Japanese H/S sockeye - scale data with circuli counts (Meristics lab), 1966.

AC/17/33 American H/S sockeye - scale data with circuli counts (Meristics lab), 1966.

AC/17/34 H/S sockeye age composition charts from "G.B.Reed" and "Sea Queen" cruises, 1966.

AC/17/35 Length and weight frequency summaries for shore samples of pinks in odd and even years, Areas 3-8,29 and S.E. Alaska, 1956-65.

AC/17/36-7 H/S pink and coho scale data with circuli counts, "Sea Queen" cruises, 1966-67.

AC/17/38 Canadian H/S pinks - tagging and scale data with salmon forecasting scale cards, 1965.

AC/17/39 Sockeye racial studies (final summary) for 1.2's and 1.3's, Areas 1-29 and Alaska, 1959-64.

AC/17/40 Canadian H/S sockeye - age compositions and frequencies for 1.2's and 1.3's, 1962-3.

AC/17/41-2 Canadian H/S scale data (unknown spp.), 1966.

AC/17/43 H/S sockeye age composition, "G.B.Reed" and "Sea Queen" cruises, 1967.

AC/18/1-49: Lengths, weights, ages, scale data, etc. from commercial catches, 1962:

...18/1-17 Sockeye, Areas 3-10,12,13,16-27 and 29.

...18/18-33 Pink, Areas 1-10,12,13 and 17-27.

...18/34-37 Coho, Areas 2,4,5,17-27 and 29.

...18/38-49 Chinook, Areas 1-6,8,9 and 17-29.

AC/18/50 Steelhead lengths and ages from Canadian H/S tagging, 1962.

AC/18/51 H/S pinks - length frequencies, scale analyses and ages (by vessel and set), 1962.

AC/19/1-2 Canadian H/S pink and sockeye scale data with circuli readings, 1965.

AC/19/3-10 Canadian H/S scale data with circuli readings for all spp. and steelhead, 1966.

AC/19/11 Sockeye age compositions in Canadian longline catches, H/S, 1967.

AC/19/12 Meristics lab scale data with circuli counts for H/S chum samples, 1964.

AC/19/13 Pink scales and circuli readings, H/S, 1965.

AC/19/14 Canadian H/S - sockeye scale data with circuli readings, 1965.

AC/20/1 Steelhead lengths, weights, ages and scale data from Skeena R. Test Fishing, Area 4, 1962.

AC/20/2 Coho and sockeye lengths, weights and ages from angling at Stn. "P", H/S, 1962.

AC/20/3 Fraser system - scale data from jack sockeye, Area 29, 1962.

AC/20/4-21 Coho lengths, weights, ages and scale data, Areas 1-10,12,13,19-27 and 29, 1962.

AC/20/22 US salmon sampling instructions and regulations, 1963.

AC/20/23 Key to Salmon Stock Assessment sampling codes for data input, 1963.

AC/20/24-63: Lengths, weights, ages and scale data from commercial catch samples, 1963:

...20/24-41 Sockeye, Areas 1-13,20,24,25,28 and 29.

...20/42-58 Chum, Areas 1-10,12,13,18-20 and 24-26.

...20/59-63 Pink, Areas 1-4 and 12.

AC/21/1-2 Pink scale data from "G.B.Reed" and "Sea Queen" cruises on the H/S and in B.C. and Alaskan waters, 1965.

AC/21/3-5 H/S ages and scale data for all spp. and steelhead, "Sea Queen" cruises, 1966-67.

AC/21/6-7 H/S sockeye, pink and chum - ages and scale data, "G.B.Reed" cruises, 1967.

AC/21/8-22/2 H/S ages and scale data for all spp. and steelhead, "G.B.Reed" cruises, 1966.

AC/22/3-5 Salmon forecasting scale cards for all spp. and steelhead, various locations, 1965.

AC/22/6-8 Canadian H/S sockeye - tagging, meristics and scale data, 1965.

AC/22/9 Chum ages, lengths and scale data (with US impressions) from US, Japanese and Canadian shore samples, 1956.

AC/22/10 Coho and pink lengths and scale data (US impressions) from US, Japanese and Canadian shore samples and H/S samples, 1956.

AC/22/11 Chum lengths, weights and scale data from Japanese shore samples (Ubetsu and Tokachi Rs.) and H/S samples, 1956.

AC/22/12-13 Sockeye and chum lengths, weights and scale data from Canadian, Japanese and US H/S and shore samples, 1956.

AC/22/14-16 Japanese and American data on chum maturities, H/S, 1956-7.

AC/23/1-43: Lengths and ages from commercial catches, 1963:

...23/1-15 Pinks, Areas 5-9,13,16,19,20,23-26,28 and 29.

...23/16-34 Coho, Areas 1-10 and 12-29.

...23/35-43 Chinook, Areas 1-5,7,9,17-27 and 29.

AC/23/44-47 Steelhead lengths from Areas 4 and 5 and from the H/S, 1963.

AC/23/48 Pink, sockeye and chum catch statistics and weighting factors, Areas 1-29, 1963.

AC/23/49-50 Pink, sockeye and chum sample data from angling at Ocean Stn. "P", H/S, 1963.

AC/23/51 "Species identification" of 1 yr. old marine salmon (by Jenkinson), all spp., 1963.

AC/23/52-53 Fraser R. sockeye jacks and smolts - annuli measurements and circuli counts, Area 29, 1963.

AC/23/54-55 Rivers In. sockeye - lengths, ages, scale data and otolith data, Area 9, 1963.

AC/23/56 Sockeye, pink and chum weighting factors and notes and statistics, Areas 2-10,12,13,18,20,23,25 and 29, 1964.

AC/23/57 Weekly sampling summaries for all spp., Vancouver and Prince Rupert sampling, 1964.

AC/23/58 Queen Charlotte Islands sockeye sampling data, Area 2, 1964.

AC/23/59 List of "special samples", all spp., Areas 1-29, 1964.

AC/23/60 Sockeye otolith ages from Skeena Test fishing and commercial fishery samples, Area 4, 1964.

AC/23/61-68 Sockeye lengths, weights, ages and scale data, Areas 3-9, 1964.

AC/24/1-7: Lengths, weights, ages and scale data (from US impressions), for H/S and shore samples, (1957, unless noted otherwise):

...24/1 Sockeye.

...24/2 Chum.

...24/3 Sockeye and chum.

...24/4 Pinks, chinook and steelhead.

...24/5 Chum.

...24/6 All spp. and masu.

...24/7 Chum (1958).

AC/24/8 FRI tagging data for all spp., H/S and shore samples, 1958.

AC/24/9-15: Lengths, weights, ages and scale data from H/S and shore samples, 1958:

...24/9 Pinks.

...24/10 Chum.

...24/11 Chum (with maturities).

...24/12-15 Sockeye, pink and chum.

AC/24/16 USSR scale samples and associated data from H/S and shore samples of sockeye, pink, chum and coho, 1958.

25/1-7 Sockeye lengths, weights, ages and scale data from commercial catches, Areas 2-5,10,12,13,24 and 29, 1964.

AC/25/8 Fraser R. (Shuswap L.) sockeye smolts - lengths, weights, ages and scale analysis, Area 29, 1964.

AC/25/9 Sockeye smolt lengths, weights, ages and scale analysis from parasitology samples, Areas 9 and 17, 1964.

AC/25/10 Fraser R. jack sockeye - lengths, weights, ages and scale analyses, Area 29, 1964.

AC/25/11 Sockeye from the Owikeno system, including Inziana R. - lengths, ages and otolith readings, Area 9, 1964.

AC/25/12 Rivers In. sockeye - ages, sexes and size composition, Area 9, 1964.

AC/25/13 Fraser R. sockeye - lengths, ages and scale data for adults and jacks, Area 29, 1964.

AC/25/14 Rivers In. sockeye homing experiment (done by the H/S salmon group), Area 9, 1964.

AC/25/15 Mark recovery forms with scale samples for chum landed at Bella Bella and Bella Coola, Areas 7 and 8, 1964.

AC/25/16 Barkley Sd. coho lengths and ages, Area 23, 1964.

AC/25/17 Chum age frequencies from Columbia R. Test fishing, 1964.

AC/25/18 Steelhead lengths, weights and ages from H/S tagging and recovery, 1964.

AC/25/19-54: Lengths, weights and scale data from commercial catches, 1964-5:

...25/19-30 Pinks, Areas 1,3-10,12,13 and 20, 1964.

...25/31-45 Chum, Areas 2-10,12,13,18,20,25 and 29, 1964.

...25/46-54 Sockeye, Areas 6-10,12,20,23 and 29, 1965.

AC/26/1-15: INPFC Highs Seas and US shore sampling data, 1959-60:

...26/1-4 Sockeye and chum lengths, weights, ages and scale data (from US impressions). Also has some maturity data - 1959.

...26/5 Records of H/S sampling for chum, pink, sockeye and coho, 1959.

...26/6 Japanese sampling data for all spp., 1959.

...26/7 H/S pink - lengths, weights, ages and scale data, 1959.

...26/8 H/S chum - lengths, weights, ages and scale data (with some maturity data), 1960.

...26/9 (1)FRI tagging totals by location, date and species and (2)sampling data from Copper R. and Eshamy R. wier, Alaska (including scale data), 1960.

...26/10 Chum lengths, weights, ages and scale data, H/S, 1960.

...26/11 Sockeye lengths, weights, ages and scale data, H/S and shore samples, 1960.

...26/12-13 Japanese pink, chinook and coho - lengths, weights, ages and scale data from H/S and shore (Kamchatka) samples, 1960.

...26/14 Morphological and scale data from Alaskan pink samples (USFWS), 1960.

...26/15 Japanese sockeye lengths and weights, H/S, 1960.

AC/27/1-6: INPFC lengths, weights, ages and scale data for H/S and shore samples, 1961-63:

...27/1 H/S sockeye, 1961.

...27/2 Chum, 1961.

...27/3-5 Pink, chum and sockeye, 1962.

...27/6 Sockeye, 1963.

AC/27/7 FRI tagging data for N. Pacific sockeye, 1962.

AC/27/8-20: INPFC lengths, weights, ages and scale data for H/S and shore samples, 1963-65:

...27/8-9 Pink and chum, 1963.

...27/10-11 Chum, 1964.

...27/12 Pink shore samples, 1964.

...27/13 FRI H/S sampling data, 1964.

...27/14 Sockeye, 1964.

...27/15 Chum from US shore samples, 1965.

...27/16-17 Pinks from H/S and US shore samples, 1965.

...27/18-20 Alaskan and H/S sockeye, 1965.

AC/28/1-3 Sockeye lengths, ages, weights and scale data from commercial catches, Areas 3,4 and 5, 1965.

AC/28/4 Fishing regulations and special sampling instructions for sockeye and steelhead, Areas 4,9 and 29, 1965.

AC/28/5 Skeena R. sockeye sampling data, Area 4, 1965.

AC/28/6-8 Sockeye, chum and pinks - weekly sampling summaries and instructions for sampling, Areas 1-29, 1965.

AC/28/9 Sockeye, chum and pink - (1)weighting factors for Skeena escapement and (2)"Age composition of 1966 B.C. sockeye, chum and pink catches", Areas 1-29, 1965-7.

AC/28/10-36: Lengths, weights and ages from commercial catches, 1965:

...28/10-23 Chum, Areas 2-10,12,13,20 and 29.

...28/24-36 Pink, Areas 2-10,12,13,20 and 29.

AC/28/37 Rivers In. sockeye - age, sex and size composition with maps and records of otolith sampling at Owikeno L., Area 9, 1965.

AC/28/38 Cutthroat trout (US samples) - scale information for J. Calaprice, 1965.

AC/28/39 Steelhead lengths from Skeena R. test fishing, Area 4, 1965.

AC/28/40 Lengths and weights of coho sampled for viscera at Alert Bay, Area 12, 1965.

AC/28/41 Pink, chum and steelhead lengths from Skeena R. test fishing samples, Area 4, 1965.

AC/28/42 H/S chum and sockeye weights and stomach contents, 1965-66.

AC/28/43-48 Lengths and weights from meristics sampling in 1965 of: (1)sockeye at Rivers In., Adams R. (jacks), Skeena R., Fraser R. (with otolith data), Horsefly R. and Middle R.; and (2)chinook at Rivers Inlet.

AC/28/49 Scale readings of juvenile chum from Cowichan Bay, Area 18, 1965.

AC/28/50 Sockeye smolt and fry scale data, Area 4 and USSR, 1965.

AC/28/51 Sockeye, pink and chum catches and sample weighting factors, Areas 1-29, 1966.

AC/28/52 Weekly summaries and general comments on sockeye, pink and chum sampling, Areas 1-29, 1966.

AC/28/53 Skeena R. sockeye - lengths, weights, ages and scale data, Area 4, 1966.

AC/29/1-12: INPFC lengths, weights, ages and scale data, 1965-66:

...29/1 Alaskan sockeye, 1966.

...29/2 All spp. and steelhead (from FRI H/S tagging), 1965.

...29/3 Meristics sampling data from pinks and sockeye, including some Newfoundland transplant samples, 1965.

...29/4 H/S sockeye, 1966.

...29/5 All spp., Japanese H/S, 1965.

...29/6 H/S chum, 1966.

...29/7 H/S and Alaskan sockeye, 1966.

...29/8 H/S pinks, 1966.

...29/9 Alaskan and H/S pinks, 1965.

...29/10-12 H/S chum and H/S and Alaskan pink, 1966.

AC/29/13 Experiment to assess the effect of feeding and starvation on circuli formation. Contents include a program listing and length, weight and scale data from sockeye, kokanee, chinook and coho (1972).

AC/29/14 Experiment on effect of photoperiod on circuli formation and body growth of sockeye - water and air temperature records, 1971.

AC/29/15 Fry starvation and mirror experiments at PBS in 1971/72, with procedure for lipid measurement. Sockeye and coho were involved. One experiment assessed the effect of mirrored aquaria on growth of young coho.

AC/29/16 Studies on circulus formation on sockeye and chinook scales at Rosewall Cr. hatchery (notes and diaries, Bilton and Robins), 1971-72.

AC/30/1 Maternal influence on egg hatching time (experiment by Robins, Humphreys and Johnston). Sockeye, chum and coho in PBS tanks, 1970-71.

AC/30/2 Growth experiment using chum fry from Robertson Cr. hatchery that were reared in salt and freshwater at PBS, 1971.

AC/30/3 1962-1967 data on identifying immature pink, chinook and chum from their scales. Includes scale photos.

AC/30/4 Rough draft of tech. report: "Identification of major B.C. and Alaskan runs of age 1.2 and 1.3 sockeye from their scale characters", 1970.

AC/30/5 Data from feeding/starvation and photoperiod experiments using various stocks of sockeye, kokanee and chinook at Rosewall Cr. hatchery and at PBS (includes water temperature data), 1970-71.

AC/30/6 PBS data on the relationship of scale size to the length and weight of sockeye and chinook, 1971.

AC/30/7 Sockeye growth/salinity experiment at PBS, using smolts from the Babine system and Robertson Cr., 1968.

AC/30/8 Sockeye, kokanee, pink and chum racial studies with data from the following areas, 1972: Scully Cr., (lower) Babine R., Stellako R., Cultus L., Meadow Cr., (Big) Qualicum R. and L. Washington.

AC/30/9 Data from a feeding/photoperiod experiment at PBS using sockeye, 1969-70.

AC/30/10 Sockeye, kokanee and chinook scale readings for racial studies, B.C. and US, 1972.

AC/31/1-32/9: Lengths, weights, ages and scale data from commercial catches, 1966:

...31/1-7 Chum, Areas 1 and 3-8.

...31/8-19 Sockeye, Areas 2-10,12,20,27 and 29.

...31/20-24 Chum, Areas 9,10,12,20 and 29.

...31/25-30 Pinks, Areas 1-6.

...32/1-8 Pinks, Areas 7-10,12,13,20 and 26.

...32/9 Sockeye, Area 29.

AC/32/10 Chum ages from scale readings, Fraser R. test fishing, Area 29, 1966.

AC/32/11 Comparison of "sub 1" and "sub 2" chinook, Area 29, 1966.

AC/32/12 Rivers In. sockeye - age, sex and size frequencies and compositions, Area 9 (and others), 1966.

AC/32/13 Weekly sampling summaries for all spp., Areas 8-10, 1967.

AC/32/14-15 Notes, letters, sampling instructions and data re: sockeye, pink and chum from Areas 3,4 and 29, 1967.

AC/32/16 Weighting factors for sockeye, pink and chum sampling in Areas 6-9,12,20 and 29, 1967.

AC/32/17 "Progress Particulars on Scales and Ages", all spp., circa. 1967.

AC/32/18-34/17: Lengths, weights, ages and scale data from commercial catches, 1967:

...32/18-25 Sockeye, Areas 3,4,9,10,12,13 and 18.

...33/1-13 Sockeye, Alaska and Areas 4-9,20,24-27 and 29.

...33/14-27 Chum, Alaska and Areas 3-10,12,13,20 and 29.

...33/28-29 Pink, Areas 2-3.

...34/1-17 Pink, Areas 4-10,12,13,16,18,20,24-27 and 29.

AC/34/18 Sockeye ages and scale measurements, Area 24, 1967.

AC/34/19 Sockeye lengths and ages (from otolith readings), Area 4 spawning grounds, 1967.

AC/34/20 Correspondence re: sockeye pintag recovery program in the commercial fishery, Area 4, 1967.

AC/34/21-22 Sampling instructions and catch statistics (with Area 9 sampling data) for sockeye, pink and chum, Areas 1-29, 1968.

AC/34/23 Weekly sampling summaries for sockeye and chum, Areas 1-29, 1968.

AC/34/24 Sockeye and chum scale impressions from Areas 8,9,12 and 13, 1968.

AC/34/25 Rough draft of MS report on weighting factors for sockeye and chum, Areas 1-29, 1968.

AC/34/26-32 Sockeye lengths, weights, ages and scale data, Areas 1 and 3-7, 1968.

AC/34/33 Piper's Lagoon pink and chum sampling data and scale impressions, Area 17, 1968.

AC/34/34 Progress reports and data processing instructions for sockeye, pink, chinook, coho and trout, Areas 1-29, 1968.

AC/34/35-37 Juvenile sockeye, chinook and coho sampling data with scale impressions, Area 18, 1968.

AC/34/38-39 Chum and coho lengths, weights and ages from crossing experiments at Big Qualicum and Rosewall Cr. hatcheries, Area 14, 1968.

AC/34/40 Pink, sockeye, chinook and chum scale impressions from parasitology samples, 1969.

AC/34/41 Lengths and ages of coho from Stuart Chan., Area 17, 1968.

AC/34/42-35/4: Lengths, weights, ages and scale data from commercial catches, 1968.

...34/42-48 Pinks, Areas 3-9.

...34/49-63 Chum, Areas 1-10,12,13,18,20 and 29.

...34/64-70 Sockeye, Areas 13,16,20,24-27 and 29.

...35/1-4 Sockeye, Areas 8-10 and 12.

AC/35/5-6 Sockeye, pink and chum sampling summaries, progress reports, bulletins, etc., Areas 1-29, 1969.

AC/35/7 MS on sockeye and chum(?).

AC/35/8 Sockeye age compositions from Test fishing in the Skeena and Nass Rs., Areas 3 and 4, 1969.

AC/35/9-14 Sockeye lengths, weights, ages and scale data from commercial catches, Areas 1 and 3-6, 1969.

AC/35/15 Pink and sockeye sampling summaries from commercial catches, Areas 3,4,9,12 and 29, 1969.

AC/35/16-36/18: Lengths, weights, ages and scale data from commercial catches, 1969:

...35/16-30 Sockeye, Areas 7-10,12,13,15,16,18,20,24,25,27 and 29.

...35/31-39 Chum, Alaska and Areas 1-8.

...36/1-7 Chum, Areas 9,10,12,13,20 and 29.

...36/8-17 Pinks, Areas 4-10,12,20 and 29.

...36/18 Steelhead, Area 23.

AC/36/19-20 Lengths, weights, ages and scale data from commercial catches of sockeye, Areas 1 and 3, 1970.

AC/36/21-22 Sockeye, pink and chum sampling summaries and weekly reports, Areas 1-29, 1970.

AC/36/23 Misc. data re: fishing regulations, age composition, expectations for season, etc., all spp., Areas 1-29, 1970.

AC/36/24 H/S pink, chum, coho and chinook scale data, 1970.

AC/36/25 "Miscellaneous species"(?)

AC/36/26 "Cannery survey data": Lengths and scale data from chum landings at Vancouver, with instructions for coding salmon data, Areas 14-29, 1970.

AC/36/27 Sockeye ages and age frequencies from Nass and Skeena R. Test Fishing, Areas 3 and 4, 1970.

AC/36/28-37/13: Lengths, weights, ages and scale data from commercial catches, 1970:

...36/28-41 Sockeye, Areas 4,6-13,20,23,25 and 29.

...36/42-57 Chum, Areas 3-10,12-16,18,20,25 and 29.

...36/58-60 Pinks, Areas 3,4 and 5.

...37/1-10 Pinks, Areas 1,2,6-10,12,13 and 25.

...37/11 Chinook and coho, Areas 2-20.

...37/12 Sockeye, Area 29.

...37/13 Pink, chum and sockeye, Area 12.

AC/37/14 Pink, chum and sockeye weighting factors and age composition data for MS report, Areas 1-29, 1971.

AC/37/15-16 Sockeye, pink and chum sampling instructions and weekly sampling summaries, Areas 1-29, 1971.

AC/37/17-49: Lengths, weights, ages and scale data from commercial catches, 1971:

...37/17-34 Sockeye, Areas 1,3-10,12,13,16,17,20,23,24,27 and 29.

...37/34-42 Chum, Areas 1,3-8,12,13 and 20.

...37/43-49 Pink, Areas 3-5,12,13,20 and 29.

AC/37/50 Line fishing (angling) logs from weatherships at ocean station "P", all spp., 1971.

AC/37/51 Rainbow trout sampling data with scale impressions, Barsby L. samples, Area 17, 1971.

AC/37/52-54 Misc. sockeye, chum and pink fishing regulations, age compositions, sampling statistics and salmon run data, Areas 1-29, 1972.

AC/37/55-38/38: Lengths, weights, ages and scale data from commercial catches, 1971:

...37/55 Sockeye, Areas 1 and 5.

...38/1-10 Sockeye, Areas 3-6,9,12,13,16,20,23 and 29.

...38/11-26 Chum, Areas 1-8,12,13,17,18,20,22,23 and 29.

...38/27-37 Pinks, Areas 1-7,9,12,13 and 26.

...38/38 Sockeye, Areas 3,9 and 29.

AC/38/39 Whitefish and trout sampling data and circuli measurements, Yukon Territory, 1972-3.

AC/38/40-42 Coho lengths, weights, ages and scale data, Areas 20,21 and 27, 1959.

AC/38/43 Juvenile chinook lengths, weights, ages and scale data, US samples, 1959.

AC/38/44 Chinook and coho smolts from Skeena R. and Owikeno L. - length and age data and a description of methods for identifying coho salmon, 1956.

AC/38/45-46 Coho sampling data and scale analyses, Area 14, 1957 and 1960.

AC/38/47 Listing of coding definitions for the salmon scale collection, all spp. and steelhead, Areas 1-29, 1957.

AC/38/48 Coho sampling data with gonad weights and age factors, Area 23, 1957.

AC/38/49 Sampling data for all spp. and steelhead, with weighted age and length frequency data, Areas 1-29, 1960.

AC/38/50 Sampling data and scale analyses for WCVI and Georgia Str. coho, Areas 19-27, 1960.

AC/38/51 Chinook sampling data from troll catches: lengths, weights and ages with correspondence re: tagging and marking (Ball and Milne), Areas 19-27, 1952-60.

AC/38/52 Coho sampling data and misc. statistics and notes on troll fishery, Areas 19-27, 1950-51.

AC/38/53 Coho sampling data for a racial study, with scale impressions, Areas 13-20, 1959.

AC/38/54 Chinook sampling data, size composition and weight/length relationships, Areas 13-27, 1952-9.

AC/38/55-58 Chinook sampling data and circuli measurements, Areas 17-27 and 29, 1959-61.

AC/39/1 Coho mark records with ages, Areas 17-27, 1967.

AC/39/2-12 Chinook lengths, weights, ages and scale data with circuli measurements and length frequency data, Area 4 (1959-63) and Area 29 (1962).

AC/39/13 Aging and scale analyses by WDF for US samples of coho, 1965.

AC/39/14-15 Coho sampling data and scale impressions, Areas 20 and 29, 1959.

AC/39/16-21 Chinook sampling data and scale impressions, Areas 13-29 (includes age compositions by gear and samples from tagging), 1958-9.

AC/39/22-32 Coho sampling data with circuli measurements, racial data and escapement ages, Areas 13-29, 1957-58.

AC/39/33-37 Georgia Str. and Juan de Fuca Str. - chinook tagging records, stomach and gonad sampling data and ages, Areas 14-27 and 29, 1957.

AC/39/38 Chinook age composition summaries ("Week by week age group summaries"), Areas 1-29, 1958.

AC/40/1-4 Sockeye and chum scale reading tests with circuli measurements and age factor data, 1968.

AC/40/5 Report on "Number of circuli in freshwater zone and age of return", sockeye, Area 4 (Skeena-Babine), 1952-58.

AC/40/6 Rough drafts and data re: "Spring growth of Babine smolts", sockeye, Area 4, 1958-65.

AC/40/7 Sockeye scale measurements from the Skeena and Fraser Rs. and Smith In., Areas 4,10 and 29, 1955-57.

AC/40/8-9 Circulars 25 and 26 on sockeye and chum age, size and sex composition in B.C. catches, Areas 1-29, 1967.

AC/40/10-14 MS reports on sockeye, pink and chum age composition, Areas 1-29, 1967-9, 1971-2.

AC/40/15 Sockeye, chinook and chum age compositions, Areas 1-29, 1957-63.

AC/40/16 Summary of starvation and feeding experiments (effect on circulus formation) using sockeye, kokanee, coho and chinook, 1970-72.

AC/40/17 Ages of Alaskan and Japanese chum, 1956.

AC/40/18 Pink sampling data, Area 4, 1956.

AC/40/19 Chinook scale reading tests, 1968.

AC/40/20 Comments on a proposed publication re: coregonid scales, 1968.

AC/40/21 Photos of pink and chum scales (showing differences in globular reticulation).

AC/40/22-25 Sockeye racial study: "Identification of runs from scale characters" (Bilton and Messenger). Discriminant factor analysis of scale measurements, Areas 1-29 and H/S, 1971-73.

AC/41/1 Effects of feeding and photoperiod on circulus formation in juvenile sockeye, 1971.

AC/41/2 Racial discriminant factor analysis of sockeye scales (Messenger and Bilton), B.C. and H/S, 1965-67.

AC/41/3 Sockeye ages in 2 degree X 5 degree areas in the N. Pacific, 1965-67.

AC/41/4 Analysis of sockeye smolt scales collected at Babine fence, Area 4, 1946-58.

AC/41/5 Sockeye scale data and measurements with final summaries from Skeena R. Test fishing, Area 4, 1961.

AC/41/6 Pink sampling summaries with mean weights, Areas 3,4,6-8,12,13 and 29, 1955-72.

AC/41/7 Data from an experiment to assess feeding/starvation effects on circulus formation in stocks of sockeye, kokanee, coho, and chinook (with data on inter-stock crosses), 1970.

AC/41/8 Scale pattern variations in H/S chum, 1955-57.

AC/41/9 Babine fence sockeye - lengths and ages, Area 4, 1956.

AC/41/10 Rivers In., Fraser R. and Skeena R. 1.2 and 1.3 sockeye - sampling data and calculations, Areas 4,9 and 29.

AC/41/11 Sockeye scale data from Skeena R. test fishing with emphasis on circulus formation on 1.2 and 1.3 fish, Area 4, 1958.

AC/42/1 Skeena R. sockeye lengths, weights, ages and scale data, Area 4, 1955-61.

AC/42/2 Pink scale data, Areas 1-29 and Alaska, 1956-64.

AC/42/3-4 Summary showing frequency of pink scale characters in odd and even years, Areas 1-29 and Alaska, 1956-63.

AC/42/5 "False annuli" in pinks, 1955,1957-59, 1961 and 1963.

AC/42/6 Graphs of scale characters of sockeye from Nass R., S.E. Alaska, Kodiak Is. and Bristol Bay.

AC/42/7 Comparison of sockeye aging using otoliths and scales from Skeena R. Test fishing, Area 4, 1963.

AC/42/8 Bella Bella pinks - "Incidence of supplementary checks on scales", Area 8, 1956-63.

AC/42/9 Computer program: "Estimation of parameters for a straight line approximation".

AC/42/10 Characters of pink scales from 18 different positions on the body (compared with scales from the preferred area), Area 8 and Alaska.

AC/42/11 Comparison of circuli counts by scale readers (evaluation of readers).

AC/42/12 Sockeye weights and maturity and meristics data, Alaskan samples, 1962.

AC/42/13 Photos of sockeye and pink scales.

AC/42/14 Historical data, including Skeena sockeye escapements, Area 4, 1962-65.

AC/42/15 Scales and scale photos from pinks from L. Superior and Newfoundland, 1964.

AC/42/16 't' tests for body length/scale radius and body length/circuli relationships in sockeye, pink and chum, 1962-67.

AC/42/17 Racial studies on Fraser and Columbia R. chum samples, Area 29 and US , 1966-67.

AC/42/18 US H/S - pink tagging data, 1964-65.

AC/43/1-4 Pink scale data from B.C., Alaska and H/S samples, 1956-64.

AC/44/1 Canadian H/S tagging data for all spp., 1962.

AC/44/2-4 Sockeye and pink racial studies: scale character frequencies, analyses and summaries, B.C. and H/S, 1958-63.

AC/45/1 H/S sockeye - scale analysis for racial study, 1955-63.

AC/45/2-3 Misc. H/S and B.C. scale data: sockeye (1957-62) and sockeye and pink (1952-67).

AC/45/4 Sockeye and chum hypural/fork length relationships, 1912-63.

AC/46/1 Population studies, scale analyses and maturity and sampling data from chum samples, B.C. and Japan, 1956-58.

AC/46/2 Text on stock identification of chum using scales, 1967.

AC/46/3 Frequencies of chum scale characters for 3 yr. olds, B.C. and US, 1956-58.

AC/46/4 Tabulations of sampling data from chum shore samples, B.C. and US, 1957.

AC/46/5-12 Chum scale summaries: annuli and circuli counts and measurements from shore samples with a racial analysis using frequencies of scale characters, B.C. and US, 1956-57.

AC/46/13 H/S chum data organized by age, maturity and area of N. Pacific for early and late season, 1958.

AC/46/14-18 Japanese and Canadian H/S chum - single fish racial analysis and maturity data (re: attempt to classify individual H/S chum into broad origin groups, using maturities and scale characters), 1958.

AC/47/1 Summary of single fish racial analyses of H/S chum (using scale characters and maturities), 1958.

AC/47/2 Comparative scale readings (with scale impressions), US and Canadian H/S chum, 1960.

AC/47/3 Sockeye and chum sampling data from commercial catches, Areas 5,7-9 and 29, 1960.

AC/47/4 Comparison of axis and base line methods of aging scales (with photos and impressions) using chum scale samples, 1963.

AC/47/5 Comparison of age determinations of chum scales from Nootka Sd., Area 25, 1941.

AC/47/6 "Variations within a scale - circuli counts on various axis angles", chum scales from Areas 4 and 29 and from Japan.

AC/47/7 Single fish racial analysis of chum shore samples, using scale characters and maturity data, 1956-58.

AC/47/8 "Scale characteristics", chum, 1960.

AC/47/9 "Coastal sampling for mature salmon", chum, B.C. and US , 1956-58.

AC/47/10 Frequencies of scale characters in H/S chum, 1957.

AC/47/11 Summary of H/S chum racial studies and aging data, 1956-57.

AC/47/12 Single fish racial summaries of H/S chum samples using scale character, early/late and mature/immature data, 1956-58.

AC/47/13 H/S chum - summaries of scale data and misc. material, 1955-66.

AC/47/14 H/S chum - summaries of scale data and racial data, N. America and Asia, 1958.

AC/47/15 Chum age and length frequencies from spawning ground samples, Area 14 and 17, 1958.

AC/47/16 Chum body size/scale relationships, Area 29, 1960.

AC/47/17 Back calculations of body size from chum scales, Area 8, 1960.

AC/47/18 Comparison between US and Canadian scale readings, Area 4 and US , 1960.

AC/47/19-20 Data from scales of chum from rivers in B.C., Japan, Alaska and USSR, 1958-59.

AC/47/21-22 Scale reader evaluations using scales from pink (1956) and sockeye (1966).

AC/47/23 Assignments of H/S chum to broad geographic origins using scale characters, 1955-58.

AC/47/24 Lengths and weights of sockeye smolts and juvenile chum and pinks, Areas 3-5, 1955.

AC47/25-48/6: H/S and shore sampling data from INPFC racial identification investigations on chum:

...47/25 Scale character and maturity data for racial assignments of individual H/S chum (combined ages) for early and late parts of the season, 1956.

...47/26 Scale data, 1958.

...47/27-30 Single fish racial analysis and selected data (scale characters of 4 and 5 yr. old fish), 1956.

...48/1-3 Data for racial study, 1956 and 1958.

...48/4 Weights, maturities and scale analyses from US and Japanese samples, 1958.

...48/5 Scale analysis of Japanese samples, 1958.

...48/6 Comparison of circuli counts between various river stocks from samples taken on the H/S , 1957.

AC/48/7 Scale reader evaluations and comparison of the scale and otolith ages of chum, Area 29, 1956-66.

AC/48/8 Seasonal variations in nos. of circuli in chum scales, Area 29, 1959.

AC/48/9-50/5: H/S and shore sampling data from INPFC racial identification investigations on chum (cont'd):

...48/9-10 Scale measurements from shore samples, B.C., Japan and Alaska, 1956 and 1958.

...48/11 H/S age composition, 1956-57.

...48/12 H/S multiple fish racial analysis (3,4 and 5 yr olds), with maturity data, 1956.

...48/13-15 H/S single fish racial analysis, with maturity data, 1956.

...48/16 H/S scale measurements, 1956.

...48/17-18 Data for the racial study, including age compositions of High Seas and spawning ground samples, B.C. and US , 1956-57.

...48/19 "Scale studies-final revision" (assignment to regions of origin), H/S and shore samples, 1956-58.

...48/20 H/S scale tracings, 1956.

...48/21 "Final summary of scale analyses" (includes maturity data), High Seas, 1956-60.

...48/22 Single fish racial analysis (using scale and maturity data) for H/S samples of 4 yr. old fish, 1958.

...48/23 H/S age compositions, 1957.

...48/24 (1)Estimates of rates of intermingling on H/S, 1957; and (2)illustrated locations of N. Pacific sampling, 1956-57.

...48/25 Studies of scale characteristics in Skeena R. test fishing catches (includes length frequency data), Area 4, 1957.

...49/1 Distributions on H/S, from single fish racial analyses, 1956-59.

...49/2-3 Final summaries of single fish racial data (scale characters and maturities), H/S, 1956-57.

...49/4 Frequency tables of annulus widths, H/S samples, 1957.

...49/5 Scale measurements from US, Canadian and Japanese shore samples, 1957.

...49/6 Scale analysis of H/S 2 yr. olds, 1957.

...49/7 H/S scale data from multiple fish racial analysis, 1957.

...49/8 H/S scale data from single fish racial analysis, with maturity data, 1957.

...49/9 Scale reader evaluations (first yr. circuli), 1957.

...49/10 H/S scale data - single fish maturity summaries for combined ages in early and late parts of the season, 1957.

...49/11 Location of spawning ground and other sampling areas (1952-55), 1957.

...49/12-14 Annuli widths and frequency tables of circuli nos., 1957.

...49/15-16 Summaries of circuli counts and annulus widths, 1957.

...49/17-18 Frequency tables of circuli nos. from eastern and western samples (?), 1957.

...49/19 Racial studies of shore samples, 1955-56.

...50/1 Background data for INPFC scale report, 1960.

...50/2 Single fish racial analysis, with maturity data, H/S, 1958.

...50/3 Scale tabulations for shore samples, 1958.

...50/4 Scale measurements for B.C. and Alaskan racial studies, 1958.

...50/5 H/S data, 1957.

AC/50/6 H/S sockeye - longline catches and operational data (FRI), 1956-66.

AC/50/7 H/S sockeye tagging in the N. Pacific (no. tagged by ocean age), 1960-67.

AC/50/8 Age composition of H/S chum (by location), 1956.

AC/50/9 Chum racial studies of Japanese and USSR shore samples, 1956.

AC/50/10-12 H/S chum - single fish racial analyses of 3 and 5 yr. olds, with maturity data, 1957.

AC/51/1-53/5: Computer printouts of H/S sockeye data:

...51/1 "Sockeye Tag Recovery Areas": tagging and recovery data by area with length, weight, sex and gonad weight. H/S and Areas 1-29 (1958, 1960, 1962-63)

...51/2 "Mean fish length of H/S sockeye by area, period, maturity, sex and age" (with adjusted mean lengths at age over all years), 1958-67.

...51/3 "T.H. Bilton's maturity statistics": (1)H/S racial data for ages 1.2 and 1.3 by area and year, 1965-67; (2)listings of catch and tagging summary cards, 1956-60; and (3)gillnetting data, 1956.

...51/4 "Mean fish length of H/S sockeye by area, period, maturity, sex and freshwater and ocean age" (longline catches for combined years), 1964-67.

...51/5-7 "Mean fish length of H/S sockeye by area, period, maturity, sex and ocean age" (longline catch data), 1964-67.

...51/8 "Mean fish length of H/S sockeye by area, period, maturity, sex and freshwater and ocean age", 1956-60 and 1967.

...51/9 H/S catch summaries (1956-60, 1963 and 1967): (1)gillnet CPUE by age and maturity and (2)longline catch per 20 skates.

...51/10 H/S catch records and summaries: (1)longline catches and catch per 20 skates for dawn and dusk sets, 1961-67; and (2)purse seine catches, 1960-61, and longline catch data listings with summaries, 1961-67.

...52/1 Canadian H/S - gillnet CPUE summaries by maturity, 1956-60 and 1967.

...52/2-4 "Mean fish length of H/S sockeye by area, period, maturity, sex and age (freshwater ages combined)" and longline catch data (with Fortran programs), 1964-67.

...52/5 Longline data for combined freshwater ages and areas (no sex data or gonad weights). Also contains mean fish lengths by area, period, maturity, sex and age, 1964-67.

...52/6-7 Longline data by area, month and year or month/year combined (no sex data or gonad weights), 1965-67.

...52/8-9 Longline data for combined ocean ages and areas (no sex data or gonad weights).

...52/10 Mean fish lengths in gillnet catches by area, period, maturity, sex and age, 1956-59 and 1967.

...53/1 Adjusted mean lengths of age 1.1 sockeye for various ocean areas, 1956-67.

...53/2-5 Longline maturity data by age and sex for 10 day periods, 1964-67.

AC/53/6 "Recoveries of Salmon Tagged Offshore in the N. Pacific by Canada, Japan and the US , 1956-1969" (INPFC Doc. no. 1377), all spp. and steelhead, 1971.

AC/53/7 ADFG data on sockeye lengths, weights and sexes by gear and area, S.E. Alaska, 1961.

AC/53/8 Misc. H/S maturity statistics for sockeye, 1956-67.

AC/53/9 Revised data on Japanese mothership fishery, with CPUE of mature and immature sockeye, 196069.

AC/53/10 Records of H/S tag recoveries and recoveries from US and other sources, 1962-63.

AC/53/11 Department of Fisheries statistical area maps, Areas 1-29, 1960's.

AC/53/12 Canadian H/S sampling data for all spp. and steelhead: scale nos. at release (cross reference to scale card indices), 1960-62.

AC/53/13 Key to tagging locations for INPFC H/S and shore sampling programs, 1956-67.

AC/53/14 Sampling instructions for sockeye, pink and chum, Areas 1-29, 1972.

** AD **

RESIDENT FISHES OF THE LAKELSE SYSTEM

YEARS: 1944-48,1950-56

SIZE: 1 box

DESCRIPTION

Record group AD contains data from a study of the fish community of the Lakelse system, particularly Lakelse Lake, from 1944 to the mid-1950's. One objective was to assess the extent of predation on young sockeye by resident fishes. They made standard and experimental gillnet sets and conducted creel surveys. The file contents are mostly catch and sampling data, the latter including stomach contents information and ages as well as size data. Some of the resident species are cutthroat trout, Dolly Varden char and squawfish. A few files have fence counts of sockeye smolts and adults and adult tagging data.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Fish

Life Stage

Juvenile / Mature / Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-2 (Terrace)

Location

Lakelse system (4-2) / Lakelse R. (4-2) / Lakelse L. (4-2) / Hotsprings Cr. (4-2)

Aspect

Abundance / Age composition / Angling / Body size / Body weight / Calibration / Catch composition / Catch/effort / Catching methods / Diurnal variations / Enclosures / Experimental fishing / Fishing effort / Freshwater fish / Gillnets / Horizontal distribution / Lake fisheries / Marking / Migrations / Mortality / Population number / Predation / Sex ratio / Size distribution / Spawning grounds / Sport fishing statistics / Stock assessment / Stomach content / Tagging / Water depth / Water temperature / Weirs

...52/8-9 Longline data for combined ocean ages and areas (no sex data or gonad weights).

...52/10 Mean fish lengths in gillnet catches by area, period, maturity, sex and age, 1956-59 and 1967.

...53/1 Adjusted mean lengths of age 1.1 sockeye for various ocean areas, 1956-67.

...53/2-5 Longline maturity data by age and sex for 10 day periods, 1964-67.

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REGISTER: RECORD GROUP AD

AD/1/1 Cutthroat trout sports fishery - catches per hour by time of day, creel surveys and tag recovery data, 1954.

AD/1/2 Stomach analyses and general surveys of resident lake fish, 1944-48.

AD/1/3 Creel surveys of lake fish, with lengths, weights, ages, sex, catches, time of day fished and the baits/lures used, 1950.

AD/1/4 Lakelse R. and Hotsprings Cr. - mark recovery and experimental netting records, stomach contents data and length frequencies. Some of the species were sockeye, cutthroat trout and Dolly Varden char, 1952.

AD/1/5 Age composition and sex ratios, lengths and weights of squawfish, 1953-54.

AD/1/6 Experimental gillnetting records (e.g. catches by mesh size) from the fall of 1953.

AD/1/7 Lakelse R. fence - downstream mark recoveries, migrant counts and water temperatures and levels, 1952.

AD/1/8 Marking and mark recovery data used to determine migrations of resident fish in Lakelse River and Lake, 1946.

AD/1/9 (1)Catches from experimental and standard gillnet fishing, 1944-48, and (2)records from a 1947 experiment which was meant to assess the efficiency of the gillnets used in the lake by fishing them in a large impoundment stocked with a known number of marked resident fish (1947). Records from (1) and (2) include mortalities, lengths and weights of samples and net positions.

AD/1/10 "Cutthroat trout population of Lakelse Lake" - report on creel survey data and assessment of importance of cutthroat as a predator on juvenile sockeye, 1950-53.

AD/1/11 (1)Rough draft - "The sports fishery for cutthroat trout at Lakelse Lake"; and (2)1945 Lakelse field book of adult sockeye tagging data and stream survey records by D. Alderdice.

AD/1/12 Analyses of stomach contents of resident fish caught by gillnet in the Lakelse system, 1953-56. Emphasis was predation on juvenile sockeye.

AD/1/13 Creel survey data with records of fishing method, fishing effort, and sampling data (lengths and weights), 1953.

AD/1/14 Methods of fishing and age composition of the catch, 1953.

AD/1/15 Catches and stomach analyses from experimental small mesh gillnetting, 1954.

AD/1/16 Miscellaneous Lakelse data from gillnetting and fence operations, involving sockeye and cutthroat. Also includes a list of summary reports re: "Sockeye salmon run to Lakelse Lake", 1952.

AD/1/17 Creel survey data with records of fishing method, fishing effort and species composition, 1952.

AD/1/18 Lakelse Lake studies - activity reports, summary of cutthroat catches (1950-54), fishing methods and sampling data (sexes, lengths, weights and ages).

** AE **

BILTON - MISCELLANEOUS

YEARS: 1910-69, 1972, 1974, 1977-80.

SIZE: 3 boxes

DESCRIPTION

The emphasis in this material is on sockeye, particularly Skeena R. stocks. One sub-group is experimental data dealing with such topics as (1)effect of age (size) of parents on the size of their eggs and juveniles, (2)effect of photoperiod, starvation and feeding on circuli formation, (3)effect of water volume in tanks on growth, and (4)causes of age of return.

The largest component in the other sub-group of miscellaneous files deals with racial studies of sockeye where investigators searched for inter-stock differences in scale characteristics. (There is some similar work for chum also). Box 3 contains construction drawings of several fences built before 1950, site plans for the early sockeye hatcheries at Lakelse and Babine, an early map of the spawing distribution and fry distribution of sockeye in Kennedy L., and various maps of northern water systems. However the majority of this second sub-group is truly miscellaneous in nature.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Salmon / Fish

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

Yukon River / Alsek-Taku-Stikine / 1 (North Queen Charlottes) / 3 (Nass R.) / 4 (Skeena R.) / 4-2 (Terrace) / 4-4 (Babine) / 8 (Bella Coola) / 9 (Rivers In.) / 10 (Smith In.) / 24 (Clayoquot) / 29 (Fraser R.) / 29-5 (Thompson R.)

Location

H/S / Kamchatka R. (USSR) / Alaska / Yukon system / McClinton Cr. (1) / Nass system (3) / Skeena R. (4) / Skeena system (4) / Lakelse system (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Granite Cr. (4-2) / Babine R. (Lower) (4-4) / Babine system (4-4) / Morrison R. (4-4) / Pierre Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / Gullwing (6-Mile) Cr. (4-4) / Port John (8) / Rivers In. (9) / Smith In. (10) / Kennedy L. (24) / Eagle R. (29-5)

Aspect

Age composition / Aging methods / Body size / Body weight / Calibration / Coastal fisheries / Escapement / Experimental culture / Experimental data / Experimental fishing / Fish catch statistics / Freshwater fish / Growth / Hatcheries / Hybrid culture / Light effects / Mapping / Marking / Otolith reading / Racial studies / Sampling (Biological) / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Scientific personnel / Sex ratio / Sexual maturity / Size distribution / Spawning grounds / Sport fishing statistics / Starvation / Stock identification / Survival / Tagging / Test fishing / Weirs

REGISTER: RECORD GROUP AE

AE/1/1 Notes and graphs re: study of plus spring growth on scales of sockeye smolts, Babine R., 1960.

AE/1/2 Rivers In. commercial pack figures and trends, 1910-1950.

AE/1/3 Graphs of circuli measurements for racial studies of chum, 1958.

AE/1/4 Notes and tables concerning runs of Babine sockeye, 1958-1962.

AE/1/5 Marine growth of Skeena R. sockeye (preliminary study), 1957.

AE/1/6 Resultant stocks of Skeena R. sockeye by age and sex.

AE/1/7 Alaskan sockeye racial study: circuli measurements, lengths and sexes, 1965-67.

AE/1/8 H/S sockeye scale readings including Japanese data, 1955-56.

AE/1/9 Recoveries in Skeena R. test fishing of tags that were applied "outside" in Areas 3-5, 1957.

AE/1/10 MS on Rivers In. survey.

AE/1/11 Scale readings for Smith In., Rivers In. and Skeena R. sockeye, 1949, 1951 and 1956.

AE/1/12 MS on age inheritance of sockeye salmon (D.R. Foskett), 1949-56.

AE/1/13 Sockeye scale readings and smolt records from tank studies, 1964.

AE/1/14 Proposal to test causes of age at return of sockeye salmon.

AE/1/15 Misc. notes and letters re: Salmonid Enhancement Program, with some smolt growth data for coho, 1977-80.

AE/1/16 S.E. Alaska sockeye data, with length, sex, no. annuli, scale type and catch by gear.

AE/1/17 Correspondence re: Canada/US scale reading workshop (coho aging),1969.

AE/1/18 Skeena R. "outside tagging" data, 1958.

AE/1/19 Apparent separation of sockeye on Babine spawning grounds, from otolith readings, 1962.

AE/1/20 Field book for study of sockeye scale development, Pierre Cr. stock, 1963-64.

AE/1/21 Variation in age composition between sockeye samples from various locations in the Skeena R. system, 1964.

AE/1/22 Studies on sockeye egg sizes, 1966-67.

AE/1/23 Comparison of age determinations of Kamchatka and Lakelse sockeye.

AE/1/24 MS rough draft: "Summary of Formation of Teleost Scales."

AE/1/25 Effect of photoperiod (on scale patterns?) experiment using coho juveniles. Includes lengths and scale samples, 1962-63.

AE/1/26 Length frequencies of Skeena R. sockeye (1960) and data for a racial study in the Skeena area (1957-58).

AE/1/27 Length frequency data for Scully Cr. sockeye, 1965.

AE/1/28 Hatchery data on crosses of sockeye age groups.

AE/1/29 Hatchery data on fish crosses using sockeye and pink, 1965.

AE/1/30 Rough drafts: (1)"Relationship Between Egg Size and Fish Size in Sockeye Salmon"; (2)"Salmon Sampling - Commercial Catches"; (3)"Problems of Aging Chinook Salmon By Their Scales" (includes notes and graphs).

AE/1/31 Circuli and annuli measurements from B.C. and Alaskan salmon, 1956-62.

AE/1/32-33 Comparison of first year circuli counts of sockeye from Skeena R. test fishing and Babine fence sampling, 1961-62.

AE/1/34 Sockeye fry and smolt records from tank samples. (Experiment to assess the effect of size (age) of parent on size of egg and progeny?). Pierre Cr. stock, 1964-65.

AE/1/35 Skeena R. sockeye - raw data by age groups in catch and escapement,1956-62.

AE/1/36 Raw data from an experiment in which 1.2 and 1.3 sockeye from Pinkut Cr. were crossed to assess the effect of size (age) of parent on size of egg and progeny and/or age of return.

AE/1/37 Skeena R. sockeye - average no. of circuli in each year band for 1.2's and 1.3's sampled in catch and escapement.

AE/1/38 Marine growth of Skeena R. sockeye by age, sex and week, 1955-58.

AE/2/1 Lower Babine R. pinks - parent size to egg size relationship, 1966.

AE/2/2 Experiment to assess effect of size (age) of parent on size of eggs and progeny (?), Scully Cr. sockeye, 1964-66.

AE/2/3 (1)Notes on the effect of water volume in hatchery tanks on the growth of young sockeye - length and weight data, Scully Cr., 1967-68; and (2)details re: collection, incubation, survival and size of sockeye eggs from the Kamchatka R., 1965.

AE/2/4 Scully Cr. hatchery data on progeny of crosses of Lakelse and Kamchatka sockeye, 1966-67.

AE/2/5 Misc. correspondence re: scale analysis workshop, 1972.

AE/2/6 "Offshore Salmon Committee" information on protection of North Pacific offshore resources, 1974.

AE/2/7 Misc. correspondence re: administration and research, 1978-79.

AE/2/8 Data and correspondence re: coded wire tagging and the Salmonid Enhancement Program, 1977-79.

AE/2/9 Discussion of anadromous fish marking and tagging programs including mark/tag recovery, 1978-79.

AE/2/10 Bilton's Kamchatka sockeye at Scully Cr. hatchery - growth records and correspondence, 1965-67.

AE/2/11 Data on coho reared with various temperatures and light periods, with scale readings, 1964.

AE/2/12 MS raw data - Babine yearling to adult survivals, 1959-67.

AE/2/13 (1)H/S catch records; (2)records from gillnetting in Lakelse L., 1956; and (3)sockeye circuli counts, 1963.

AE/2/14 Rough drafts and reports: (1)"Effect of egg size on growth and survival of hatchery reared coho and chinook"; (2)"Studies on sex determination in salmon and amphibians".

AE/2/15 Rough drafts: (1)"Investigation of the fish population of Lakelse L., 1944"; (2)"The sports fishery for cutthroat trout at Lakelse L., B.C."; and (3)"Key to netting positions at Lakelse L., 1946-47."

AE/2/16 "Effects of Starvtion, Feeding and Light Period on Circulus Formation on Scales of Young Sockeye Salmon" - reprints and supporting data.

AE/2/17 (1)Records of maturity by sex, 1963-66; and (2)mark recovery graphs, 1967.

AE/3/1 Charts of Alaskan surfline.

AE/3/2-3 Blueprints and original drawings of FRB fences: (1)Lakelse R. (adult),1947; (2)Scully Cr. (adult/fry), 1949; (3)Port John (adult/fry), 1947; (4)McClinton Cr. (adult/fry), 1928-40; (5)Babine R. (adult), 1946; (6)Six-Mile (Gullwing) Cr. (adult/fry), 1950; and (7)Eagle R. (adult).

AE/3/4 Maps of the Yukon, Skeena, Nass and Fraser R. drainage systems and Panhandle trans-boundary rivers.

AE/3/5-6 (1)Early blueprints and drawings of sites of sockeye hatcheries - Babine hatchery at Morrison R. and Lakelse hatchery at Granite Cr. (1921) and proposed hatchery site at 15 Mile (Pinkut) Cr. (1915); (2)map of Kennedy R. system with Kennedy L. hatchery records showing sockeye spawning grounds and distribution of sockeye fry on beaches; and (3)maps of INPFC recovery areas in B.C.

AE/3/7 Original drawings and blueprints of Babine and Skeena systems.

AE/3/8 Blueprint map of Skeena R. system.

** AF **

REVISED COMMERCIAL SALMON CATCH STATISTICS (1951-67)

YEARS: 1951-67

SIZE: 5 boxes

DESCRIPTION

Revised daily, weekly and monthly catch statistics tabulated by species, year, area and gear. Statistics are primarily from B.C. with some data from Alaska and the waters off Washington State (Area C).

HISTORY/SOURCE: V. Aro

INDEX TERMS

Species

Sockeye / Pink / Steelhead / Chinook / Coho / Chum

Life Stage

Mature / Ocean fish

Statistical Area

All B.C. Areas

Location

Alaska / Area C (Off Washington State)

Aspect

Coastal fisheries / Colour / Fish catch statistics / Fishing gear / Fishing time / Gillnetters / Jacks / Purse seining / Trap fishing / Trolling

REGISTER: RECORD GROUP AF

AF/1/1 Weekly catches for all areas, 1951-1967.

AF/1/2-2/17 Revised monthly salmon catch statistics in pieces and pounds by days, species, gear and areas (C, 1-30), 1951-1963. There is additional data in the Area 4 file concerning Skeena Salmon Management Committee data from Areas 3-5 (1950-56), in the Area 9 file on daily sockeye catches in Areas 9-10 (1963) and in the Area 20 file on trap catches. Only 1951-54 is available for Area 29E.

AF/3/1 Revised salmon catch statistics for Alaska, 1960-63.

AF/3/2 Work sheets with revised accumulative catches by Area, 1951-58.

AF/3/3-5/3: Computer printouts with days fished data and daily catches of all salmon spp. and steelhead. There is also a jack category and chinook are listed as red or white. Data is filed within species by Area (for all Areas) and by year (for 1962-65)

...3/3-4/1 Seine catches.

...4/2-5/3 Gillnet catches.

** AG **

SKEENA SALMON INVESTIGATIONS

YEARS: 1904-68,1977-79

SIZE: 10 boxes

DESCRIPTION

AG is a group of files from V. Aro concerning salmon (largely sockeye) studies in the Skeena system. It has been divided into 8 sub-groups:

1. Tagging and marking data (including recoveries). The largest part of this sub-group is data from coastal tagging of Skeena salmon, primarily sockeye and pinks, in 1944-48 and 1956-58. It is variously called Skeena "offshore", "Chatham Sd.", or simply "Area 3-5" tagging. There is also tagging and tag recovery data from the US (S.E. Alaska and Skeena recoveries), from programs in Areas 2,3 and 6-9, from Skeena test fishing (1955-58), from Moricetown Falls (1944-48) and from the Babine fence and other Skeena areas (1944-57). Files: 1/1,2,6-12,16; 3/9-11,13,15; 4/9-16; 5/1-13; 7/11-12; 8/4,15,16,27,31; 9/18,19,21,31,35,36; 10/13.

2. Commercial fishery. Several of these files have catches for Areas 3-5, broken down in various ways (e.g. by week, gear or company). Together, they cover most years up to 1963. There is a report on the temporal variation in age and sex composition in the Skeena fishery, another assessing mesh selectivity in the Skeena gillnet fishery (by presenting data on length and sex composition of catches and escapements), and a third on the Bristol Bay fishery from 1935-55. Files: 1/17; 2/1,3,4,8,9; 3/3,15; 8/5,7,12,31.

3. Skeena R. test fishing. These files are for the period 1955-65 and have (a)set logs (with some tagging data), (b)catches and daily catch per unit efforts from standard and special sets, (c)lengths and (d)miscellaneous data such as seal counts and gillnet specifications. Files: 1/7,13,15; 2/5,6,10,11,13,14; 3/7,13; 3/16-4/8.

4. Data from escapements. Fence counts and abundance estimates of spawning populations make up the largest part of this sub-group. There are 1950-52 counts from Hooknose and Tally Crs. at Port John. Virtually all the rest of the data is from spawning stream surveys and fence counts in the Skeena system for all years between 1927 and 1963. This sub-group also has adult sampling data, mostly for Skeena sockeye. The data include lengths, ages, sex ratios, fecundities, maturities and conditions. A third part of this sub-group has sampling, tagging and enumeration data from a 1940's study of the salmon migrating through the Moricetown Falls obstruction. Finally, there are miscellaneous files, almost all to do with Skeena escapements. Examples are (a)data on the effects of the Babine R. slide and accounts, photos, etc. of its removal, (b)obstruction reports for Skeena streams (1922-37) and (c)data on the temporal pattern of daily salmon passage through the Babine fence. Files: 1/4-5; 2/2,12,16; 3/4; 7/11,12,22; 8/3-6,10,22,31-35; 9/1,2,9,18,21,27,32; 10/5.

5. Skeena lakes studies. This is the largest sub-group and is the main body of data from the exploratory work done between 1943 and 1949 on sockeye systems in the Skeena drainage. There is basic limnological and weather data from virtually all nursery lakes in the Skeena system (e.g. soundings, temperatures and benthos and plankton samplings). Fish populations were studied by gillnetting, stream surveys and, in a few places (e.g. Lakelse, Babine and Bear Ls.), by using fences and tagging. The data from these studies are on file, as are data from fry and smolt studies (the latter using marking and partly involving predation aspects). Files: 3/12; 5/14-6/11; 7/1,3-10,13-15, 17-26; 8/1-3,9,17-21; 9/3-8,11-16,17-26,28-30,34; 10/3-4.

6. Gullwing (6 Mile) Cr. study. This sub-group has data from a sockeye study on this tributary to Babine Lake. It was a fence operation in the early 1950's. There is water and weather data, fence counts of juveniles and adults, sampling data for sockeye fry and adults, data on fry predation and records from redd sampling. Files 6/12-14; 8/22-28.

7. Anthropological/historical information. These files have discussions on the history of the Babine L.-Bear L.-Stuart L. area (primarily) and also describe native fishing in the Skeena area and in N.W. North America in general. Files: 10/1,2,6-11.

8. Miscellaneous. Most of these files deal with the Skeena R. system. They include physical data (such as weather data and soundings of the North Arm of Babine L. and Nilkitkwa L.), land leasing information, and reports on the obstruction at Hagwilget Canyon and on the major forest fires of 1922-23. Files on Skeena salmon include theses, migration studies (e.g. at Williams Cr., 1939), a summary of the catch, esapement and total stock of Skeena sockeye and pinks (1956-62) and sex, age, length and weight data for sockeye smolts from several Skeena systems. There are more files on other subjects such as heritability of size in salmon, effect of turbines on downstream migrants and Port John L. sockeye studies (1948-50). Files: 1/3; 2/3a,7,12,15,17; 3/1,2,5,6,8,14; 7/16; 8/4-8,11,13,14,29-31,36; 9/10,33; 10/12.

HISTORY/SOURCE: Deposited by V. Aro

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Kokanee / Steelhead / Fish / Plankton / Other

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

2W (West Queen Charlottes) / 3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 5 (Grenville-Principe) / 6 (Butedale) / 7 (Bella Bella) / 8 (Bella Coola) / 9 (Rivers In.) / 29 (Fraser R.) / 29-7 (Nechako)

Location

Alaska / Bristol Bay (Alaska) / Kodiak Is. (Alaska) / S.E. Alaska / Ketchikan / Hippa Is. (2W) / Nass system (3) / Haystack Is. (3) / Prince Rupert / Chatham Sd. (4-1) / Skeena R. (4) / Skeena system (4) / Raspberry Bluff (4-1) / Tyee Bank (4-1) / Gitnadoix R. (4-2) / Alastair L. (4-2) / Lakelse system (4-2) / Lakelse L. (4-2) / Williams Cr. (4-2) / Kitsumkalum (Kalum) R. (4-2) / Kitsumkalum (Kalum) L. (4-2) / Terrace / McDonell L. (4-2) / Kitwanga system (4-2) / Kitwanga L. (4-2) / Kispiox system (4-2) / Swan L. (4-2) / Stephens L. system (4-2) / Bulkley system (4-3) / Bulkley R. (4-3) / Hagwilget Canyon (4-3) / Moricetown Falls (4-3) / Morice L. (4-3) / Motase L. (4-3) / Bear L. (4-3) / Azuklotz L. (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Kluatantan Ls. (4-3) / Kluayaz L. (4-3) / Babine R. (4-4) / Kisgegas (4-4) / Onerka L. (4-4) / Nilkitkwa L. (4-4) / Babine system (4-4) / Babine L. (4-4) / Fort Babine (4-4) / Morrison L. (4-4) / Topley Landing (4-4) / Gullwing (6-Mile) Cr. (4-4) / Hooknose Cr. (8) / Port John L. (8) / Tally Cr. (8) / Fraser system (29) / Fort St. James / Stuart L. (29-7) / Columbia R. / Sweden

Aspect

Aerial photography / Age composition / Anadromous migrations / Angling / Aquatic mammals / Barriers / Benthos / Body size / Body weight / Catch composition / Catch/effort / Coastal fisheries / Dams / Diurnal variations / Escapement / Experimental fishing / Feasibility / Fecundity / Fish catch statistics / Freshwater fish / Gear construction / Gillnets / Growth / Historical account / Horizontal distribution / International cooperation / Jacks / Lake morphology / Limnological data / Marking / Mesh selectivity / Mortality causes / Natural mortality / Photographs / Population number / Predators / Production (Biological) / Progress reports / Proposed research / Redd sampling / River discharge / Scale reading (Ages) / Season regulations / Sex ratio / Sexual maturity / Size distribution / Staining / Stock identification / Stomach content / Tagging / Temporal distribution / Test fishing / Theses / Weather conditions / Weirs

REGISTER: RECORD GROUP AG

AG/1/1 Timing data on migration of Skeena sockeye and pinks (as determined from tagging) for 1944-48 and 1957-58.

AG/1/2 Rough draft of a MS Report: "Times of passage of Skeena R. sockeye and pink salmon through the commercial fishing area", with sampling data and tables.

AG/1/3 Precipitation records for Fort St. James, Babine L. and Prince Rupert, 1912-54.

AG/1/4 Reports by the Fishery Officer for the lower Skeena R., 1955-58 and 1961.

AG/1/5 Age composition of Skeena sockeye escapements, 1962-63.

AG/1/6 Tag recovery information for sockeye and chinook from Babine, 1947-57, including a file report on "The migration times of Babine L. sockeye runs".

AG/1/7 Tag records for all spp. from Skeena R. test fishing ("Skeena T. F."), 1955-57.

AG/1/8 Tag records from Chatham Sd. for adult and juvenile salmon (mainly pink and sockeye), 1956.

AG/1/9 (1)Tag recovery records of Skeena sockeye, 1945-57; (2)Rough draft: "The Migration of Skeena R. Pink Salmon"; (3)Report: "Migration Times of Some of the Skeena R. Sockeye Runs Through the Skeena R. Estuary as Indicated by Tagging", 1944-58; and (4)summary of passage times.

AG/1/10 Tables of tagging and recovery statistics in Areas 6-9 for all spp., 1947-48 and 1955-66.

AG/1/11 (1)Tag recovery data for sockeye from Haystack Is. and Hippa Is., 1925, and (2)"Pacific Salmon Migration: Report on Tagging Operations in 1925".

AG/1/12 Skeena tag recovery data (all spp.), 1944-48.

AG/1/13-15: Length frequencies from Skeena T.F., 1955-56:

...1/13 Sockeye.

...1/14 Sockeye, by age, set and mesh.

...1/15 Chinook and steelhead.

AG/1/16 (1)Tag records and recovery data for mixed spp. from Chatham Sd., 1957-58; and (2)a rough draft of a report to the Minister re: mixing of Skeena and non-Skeena salmon in B.C. net areas, 1959.

AG/1/17 Commercial catch records by gear for Areas 3 and 4, 1948-63.

AG/2/1 Commercial catch records by gear for Areas 4 and 5 (all spp.), 1950-61.

AG/2/2 General spawning stream estimates for Skeena area sockeye (1938-63 and 1965), with 1960 spawning estimates for all B.C.

AG/2/3 File report on "Opening and Closing dates" for the Area 4 fishery, 1926-63.

AG/2/3A File reports re: Skeena R. migrations and smolt outputs.

AG/2/4 Weekly catch records for the Skeena and Nass (all spp.), 1955-59.

AG/2/5 Data on Skeena T.F., 1956-57, with catch factor analysis and seal counts.

AG/2/6 Extra T.F. at Raspberry Bluff in Skeena estuary, 1963.

AG/2/7 Report on major forest fires in Skeena system spawning areas, 1922-23.

AG/2/8 Commercial catch figures by company for Areas 3-5 (all spp.), 1961-63.

AG/2/9 Newspaper clippings re: sport and commercial salmon fishing at Ketchikan and Prince Rupert, 1961-62.

AG/2/10-11 Daily average catch per hour at Skeena R. T.F. for sockeye and pinks (1955-56) and for chum, coho and steelhead (1955-65).

AG/2/12 (1)Miscellaneous data, letters, photos and reports re: the Bulkley R. system, 1952-56; (2)age sampling data; and (3)a "Report on the Obstruction at Hagwilget Canyon, Bulkley R.", 1957.

AG/2/13 Average daily catch per hr. from Skeena T.F. for springs (1956-62), sockeye (1956-64) and pinks (1958-64), with estimated escapements (1955-60).

AG/2/14 Skeena T.F. catch data, including experimental net studies, 1955-65.

AG/2/15 "Catch, Escapement, and Total Stock of Skeena R. Pink and Sockeye, 1956-62".

AG/2/16 MS Report titled "Summary of Salmon Enumeration and Sampling Data, Babine River Counting Weir, 1946-60", with supporting data.

AG/2/17 (1)Newspaper clippings from Prince Rupert, Ketchikan and Kodiak, 1963-64; and (2)air survey photographs, 1947.

AG/3/1 "Alaska - General" file with letters, notes and tables related to Skeena salmon studies.

AG/3/2 Information re: "Committee on Problems of Mutual Concern Related to the Conservation and Management of Salmon Stocks in S.E. Alaska and Northern B.C.", 1963.

AG/3/3 Information re: "Committee for Skeena R. Salmon Fisheries Management, 1955-64".

AG/3/4 Correspondence and reports on Skeena enumerations, 1955-63.

AG/3/5 Misc. file reports (mainly by R.E. Foerster).

AG/3/6 File reports on: (1)Skeena R. studies, estimating sockeye runs and aging sockeye by scale analysis and (2)L. Royal's comments on the Fraser sockeye section of a Natural Resources paper.

AG/3/7 Specifications for Skeena T.F. nets, 1960-63.

AG/3/8 Land lease information for the Babine L. area, 1954.

AG/3/9 FRI tagging and recovery data, 1957-63, for US tags other than H/S.

AG/3/10 FRI tagging data for Skeena and Alaska pink and sockeye, 1957.

AG/3/11 Tagging record duplicates for Chatham Sd., 1956-57.

AG/3/12 Bear L. and Nass R. information and data, including photographs of a fish fence (at Bear L.?).

AG/3/13 Skeena T.F. - fishing log duplicates, 1955-58, with tagging records and comments on the physical condition of the fish.

AG/3/14 Correspondence re: "Permit to take migratory birds for scientific purposes", 1954.

AG/3/15 (1)Data from salmon tagging and recovery programs in S.E. Alaska, 1957-58; and (2)"A Discussion of the Bristol Bay Red Salmon Fishery, 1935-55", by F.C. Withler.

AG/3/16-4/6 Skeena T.F. set logs by year, 1956-64.

AG/4/7 Catches from special test fishing at Tyee (in Skeena estuary), 1959.

AG/4/8 Skeena T.F. set logs nos. 1 and 2, 1955.

AG/4/9-16 Skeena T.F. logs with tagging data, 1955-57.

AG/5/1-6: Data from "outside" (or "offshore") tagging in Areas 3-5 for all spp. (target was Skeena sockeye):

...5/1 1958.

...5/2 1945 ("Lady V" and "Estep")

...5/3-5 1956-58 (set records by year).

...5/6 1957 (3 books, records for each applied tag).

AG/5/7 Sockeye tagging and recovery records from Skeena Salmon Investigation, 1944-46.

AG/5/8-13 Ocean tagging record books (mainly sockeye in Areas 3-5), 1947-48.

AG/5/14-6/3 Field books with limnological data, water levels, gillnet set records (mixed spp.), bottom sampling records, stream surveys and observations on fry migration - Babine L. (1944-46) and Morrison L. (1945-48).

AG/6/4-10 Babine L. studies (1947) - Field books for: Lake Div. no. I ("limnology and spawning streams" and "netting and yearling marks"); Lake Div. no. II (daily limnology records, stream surveys, netting data and tag returns); and Lake Div. no. III (netting, limnology and stream surveys).

AG/6/11 Babine L. studies (1948) - field books for Topley Landing (Div. I), Fort Babine (Div. III) and stream surveys.

AG/6/12 Six-Mile Cr. - fence counts and stream surveys for adult sockeye and kokanee, with other species, 1950.

AG/6/13 Six-Mile Cr. fence - fry counts and observations, including sockeye and kokanee fry, 1951 and 1954.

AG/6/14 Six-Mile Cr. fence - counts, weather and stream surveys, 1953.

AG/7/1 Notes and data from Gitnadoix R. and Alastair L. trip: Aug. 21-28, 1947.

AG/7/2 [No file]

AG/7/3 Lakelse L. winter surveys and surveys of tributary streams, 1948.

AG/7/4 Lakelse and Kitsumkalum (Kalum) Ls. - soundings and netting, 1944.

AG/7/5 Lakelse and Kalum Ls. - spawning stream surveys, 1944-45.

AG/7/6 Lakelse L. - limnology and netting records, 1945.

AG/7/7 Kalum L. - equipment for netting and limnology, 1945.

AG/7/8 Kalum L. trip - Diary and limnological data, 1947.

AG/7/9 Kalum L. and R. survey, 1946.

AG/7/10 Gitnadoix and Alastair L. trip - diary and data, 1946.

AG/7/11-12 Moricetown Falls trip - weather and water conditions, Indian catch records and scale and tagging records, 1947.

AG/7/13 Bear and Azuklotz Ls. - weather and netting records, 1947.

AG/7/14-15 Bear and Azuklotz Ls. - weather data, tag recoveries, net and line fishing catches and Indian catch records, 1948.

AG/7/16 A chronological list of experiments and investigations.

AG/7/17-26: Field books from Skeena lakes limnology and netting studies:

...7/17 Morrison, Babine, Bear and Sustut Ls., 1945.

...7/18 Morice L. - "Complete field data" (J.R. Brett), 1945.

...7/19 Bear L. - weather and tagging records, 1947.

...7/20 Bear and Sustut Ls. - complete records, 1946.

...7/21 Lakelse L. - experiments and observations on smolts, 1947.

...7/22 Moricetown Falls - complete records, 1946.

...7/23 Kitwanga system - complete records, 1946.

...7/24 Lakelse L. - netting records, 1946.

...7/25 Upper Skeena lakes (except Bear and Sustut Ls.) - complete records, 1946.

...7/26 Lakelse L. - temperatures and water levels, 1955.

AG/8/1 Text re: Kitwanga L. studies by McConnell and Brett, 1945-47.

AG/8/2 Maps and notes on streams in the Lakelse and Babine systems, 1945-47, and a text titled: "Notes on Chart Showing Adverse Factors Which May Affect Salmon Production and Suggesting Possible Remedies".

AG/8/3 Draft MS Reports: (1)"Natural Propagation of Sockeye Salmon at Lakesle Lake" and (2)"Adult Sockeye Salmon Escapement into Hooknose and Tally Crs.", 1950-52.

AG/8/4 Draft MS reports, 1946-50: (1)"The Story of the Skeena River Salmon Investigation"; (2)"Skeena River Sockeye Escapement and Distribution"; (3)"Propagation and Interrelated Problems"; (4)"Sockeye Salmon"; (5)"Pink Salmon"; (6)"Salmon Tagging Off the Skeena River in 1948"; (7)"Egg Content of Babine Sockeye"; (8)"Port John Lake Sockeye Studies, 1948-50"; and (9)"Turbines and Descending Salmon and Trout Smolts".

AG/8/5 Notes and papers for Annual Reports or conference speeches (1948-50): (1)Swedish fishery research, (2)commercial catches, the Indian fishery and sockeye escapements and (3) the Skeena River Investigation.

AG/8/6 (1)Newspaper clippings (1947-48); and (2)draft MS reports: (a)"Migration of Skeena R. Salmon", (b)"Mammalian and Other Predators of Skeena River Salmon", (c)"Fish Culture Problems...on the Skeena River", (d)"Efficiency of Natural Propagation of Pacific Salmon", (e)"Do Small Salmon Tend to Produce Small Salmon?", (f)"Reasons for the Occurrence of Stunted Fish Populations", and (g)"Investigations of Growth etc. by Different Forms of Trout".

AG/8/7 Skeena Salmon Investigation: (1)Correspondence concerning theses work by Godfrey, D.R. Foerster, Milne, Withler, McMahon, H.D. Fisher and J.G. Hunter (circa 1945-49); and (2)BA thesis on the temporal distribution of sockeye ages and sex ratios in the Skeena fishery (by Withler), 1945.

AG/8/8 Miscellaneous file reports from Skeena River Salmon Investigation, 1944-48.

AG/8/9 Illustrations, graphs and photos re: Lakelse, Babine and Skeena regions, 1944-47.

AG/8/10 Weekly reports of Fishery Inspectors (mainly Area 4), 1936-37.

AG/8/11 Skeena R. Salmon Investigation - general reports and plans, 1944-49.

AG/8/12 Skeena R. fishery - catches of all spp. up to 1936.

AG/8/13 Notes from various talks, speeches, seminars and interviews, 1949-53.

AG/8/14 Notes on "New Sockeye Program", 1953.

AG/8/15 Skeena R. marking data, including summaries, 1948-51.

AG/8/16 Skeena R. mark recovery and catch data, 1944,1949-51.

AG/8/17 Lakelse L. - water levels, chemical analysis, plankton records and net sampling for 1949.

AG/8/18 Surveys of salmon and resident fishes in Lakelse, Kispiox and Kitwanga Ls., 1945.

AG/8/19 Kitwanga L. data (including maps and graphs), 1945.

AG/8/20 Notes and tables from Alastair L. surveys, 1946-47.

AG/8/21 Notes and tables from survey of the Kispiox system, 1945.

AG/8/22 (1)Babine fence investigations - general objectives for 1954; and (2)Six-Mile Cr. - general reports, 1950-53.

AG/8/23 Six-Mile Cr. - fry sampling data (1951) and fry estimates (1954).

AG/8/24-28 Six-Mile Cr. survey data: (1)water levels and temperatures, 1953-54; (2)length and sex frequencies, 1950 and 1953; (3)redd sampling, 1950-51; (4)adult tagging, 1953; and (5)fry predation, 1951 and 1954.

AG/8/29 Babine field work - proposals for annual investigations (procedures and objectives), 1946-55.

AG/8/30 Sockeye smolt sampling data from Bear, Morice, Kispiox and Kitwanga systems and the Bulkley R., 1955-57.

AG/8/31 (1)Soundings chart of the N. half of the North Arm of Babine L.; (2)report, without data, on the diurnal pattern of salmon passage through the Babine fence; (3)account of a small experiment assessing various dyes and solutions as marks (using coho smolts); and (4)a report on the size and sex selectivity of Skeena fishery gillnets, showing length and sex data from catches (1912-49) and percent females, large males and jacks in escapements to Babine and Lakelse (1939,1946-50).

AG/8/32-35 Records and data from the Babine fence: (1)length and sex frequencies, 1946-47; (2)dead on fence, 1953; (3)delay experiment, 1946-47,1949; and (4)maturities and conditions, 1952-53.

AG/8/36 Morphometry of Nilkitkwa L., 1953.

AG/9/1 Babine slide information, including photographs of slide removal, 1953.

AG/9/2 Effect of Babine slide - analysis using Babine fence counts, 1948-53.

AG/9/3 "Winter trip to Topley Landing", 1943.

AG/9/4 Babine field work - yearly work plans, 1946-48.

AG/9/5 Babine L. limnological records, 1944-47.

AG/9/6 Terrace weather data for 1946 and a report titled: "A Climatological Study of the Skeena River...", by J.R. Brett.

AG/9/7 Skeena R. Investigation - proposals and reports, 1948.

AG/9/8 Physical and chemical limnological composite for Div. II of Babine L., 1946-47.

AG/9/9 "Report on the Obstruction at Moricetown Falls", by Milne, with photographs and summaries.

AG/9/10 Precipitation and air temperatures for the Babine/Skeena area, 1926-36.

AG/9/11 Morice L. survey - limnological and fishing data, 1944-46.

AG/9/12 Depths and temperatures from Morrison L. survey, 1945.

AG/9/13 General information and a description of the yearly program for upper Skeena surveys, 1946.

AG/9/14 General fish data for upper Skeena surveys (1946), and "The Problem of Marginal Sockeye Lakes", by D.R. Foskett.

AG/9/15 Lake studies with netting surveys and summaries for Kluatantan, Kluayaz, Motase, Onerka, Johanson and McDonell Ls., 1946.

AG/9/16 Plans, itineraries, supplies and equipment lists for upper Skeena surveys, 1946-47.

AG/9/17 Meteorological records from Topley Landing, 1947.

AG/9/18 Counts and tag recoveries from adult sockeye in Babine system, 1944-47.

AG/9/19 Sockeye yearlings at Babine L. - marking and predation studies, with procedures and comments, 1944-47.

AG/9/20 Data from an ecological study in Div. I of Babine L., 1946.

AG/9/21 Babine L. and R. - sockeye distributions, experiment to check for delay caused by tagging, salmon stream surveys and tagging records, 1946-47.

AG/9/22 Babine and Lakelse Rs. - water level and discharge records, 1947-49.

AG/9/23 Netting data for Morrison L. (catches, lengths and sex of whitefish), 1946.

AG/9/24 Reports on Babine system, 1944-55 (Brett, Withler, Aro, Alderdice, McConnell and McMahon).

AG/9/25 Netting summaries and stomach analyses of predators in Babine and Bear Ls., 1945.

AG/9/26 "Some Characteristics of Kitsumgalum Lake and Tributary Waters" (a comparison of Lakelse and Kalum Ls.).

AG/9/27 Written transcripts of all(?) Annual Spawning Stream Reports for the Skeena system (with some maps), 1927-37.

AG/9/28 "Investigation of Fish Population in Kitsumgallum L., 1944".

AG/9/29 Spawning ground surveys of Kalum R. and tributaries, 1945-46.

AG/9/30 Kitsumkalum L. reports - "summary and progress", 1945-46.

AG/9/31 Coastal tagging of Skeena pinks and sockeye - procedures and data summaries (1944-48).

AG/9/32 Obstruction reports by Fisheries Officers for spawning streams in the Skeena system, 1922-37.

AG/9/33 Lakelse L./Williams Cr. migration studies, 1939.

AG/9/34 Alastair L. - stomach content analyses, fry studies and species survey, 1947.

AG/9/35-36 Area 4 tagging cards, 1946-48.

AG/10/1-2 Data and text on B.C. subsistence fishery, mainly Skeena R.: (1)"Working Paper on Indian Food Fisheries and Salmonid Enhancement" (Friedlander and Pief), 1972; and (2)"The Effect of the Indian Fishery on the Skeena River Salmon Runs", 1948.

AG/10/3-4 Interim report on the Skeena Salmon Investigation by Pritchard et al. with 12 appendices, 1948.

AG/10/5 Egg counts from Babine sockeye (1946-53) and "Fecundity of North Arm Salmon".

AG/10/6 Historical sociological accounts for Skeena/Babine region, 1904-50.

AG/10/7 Indian food fishing on the Columbia R. - 1950 (summary of 1928-50 period) and 1963-65.

AG/10/8 Indian food fishery on the Skeena R., 1930-68.

AG/10/9 Babine, Bear and Stuart L. area: Historical, anthropological and cultural data (including methods of food fishing) - circa 1950-60.

AG/10/10 Correspondence with Hudsons Bay Co. and Public Archives of Canada, re: history of the Skeena and upper Fraser region, 1965-66.

AG/10/11 Dissertation: "Aboriginal Use of Fishery Resources in N.W. North America", by G.W. Hewes, 1947.

AG/10/12 Assessment Report on the 1977-78 Native Project Pilot Program, 1979.

AG/10/13 Moricetown Falls tagging cards, 1944-48.

** AH **

M. SHEPARD'S DATA FROM B.C., THE HIGH SEAS AND JAPAN

YEARS: 1873-1971

SIZE: 13 boxes

DESCRIPTION

This record group is particularly diverse in its subject matter. We have divided it into five sub-groups:

1. High Seas (H/S) studies (1954-71). This sub-group has salmon and steelhead data which deal with efforts to determine the sexual maturity of sockeye, pink and chum using histological examinations and gonad weights (as ratios of body weight). There is also (a)age, length and weight data and catches, (b)tag recovery and migration route information for chum, (c)vertical distribution analyses for sockeye and (d)discussions of net and longline gears. Files: 1/1-4, 17, 21, 23, 24, 29; 2/17; 5/2-4, 6, 9, 11, 12, 14; boxes 8-10; 11/4, 5, 7; 12/4, 17.

2. Skeena/Lakelse studies (1908-65). Most of this sub-group has data from studies in the Lakelse system from 1944 to 1956. The physical data consists of weather records, water temperatures, water levels, river discharges and bathymetric data. Some files have data on the benthos, plankton and vascular plants of Lakelse Lake. There is a large segment with sampling and catch data from angling, netting and trapping of resident fishes such as cutthroat, Dolly Varden and squawfish. Other files have coho and sockeye smolt counts and sampling data from traps and fences on Lakelse River. The adult sockeye data comes from fences on Lakelse R. and Williams and Scully Crs. and from surveys of the lake and creeks. There is data on a multi-year evaluation of the mark recapture census technique using fence counts. Data from other areas include hatchery records from the Kleanza Cr. experimental pink hatchery (1957-58), some 1940's Skeena lakes data (e.g. stomach contents, plankton and benthos data), some smolt sampling data from Bear and Morice Ls. and some material on the Skeeena system in general. The latter has (1) test fishing data, including an analysis of the effects of weather on test fishing catches; (2) exploitation and migration studies using tagging; (3)pack statistics; and (4) stock recruitment analyses. Files: 1/7, 8, 11, 16; 2/8, 26-32, 34, 35, 37, 38; 3/1-3, 5-15, 17-26, 28-41, 43-48; 4/1-19, 21, 23, 27-31, 34, 35; 5/1, 5, 15-24; 6/1-23; 7/1.

3. Japanese salmon culture and fisheries (1955-70). Most of this sub-group deals with data obtained by M. Shepard on an exchange visit to Japan. Most of the data is on Japanese chum hatcheries, centered on the island of Hokkaido - their methods and production and their costs and benefits to the fishery. There are some descriptions of Japanese coastal and H/S fisheries which detail the catches and summarize what they have found out about the migration and distribution of chum. Two files have discussions and data on masu salmon. Files: 1/14, 21, 25; 2/4; 5/8; 11/5, 9-13, 17-19; 12/1-18; 13/1-3.

4. International negotiations (1900-1971). These files have background data, position papers and notes for international negotiations (INPFC, US/Canada and the UN "Law of the Sea" talks). Most of the material relates to US/Canada talks on such topics as Fraser system stocks and north coast pinks. There are (1)estimates of interceptions, the value of these interceptions, and the cost of the Fraser fishways; and (2)more general data on catches and CPUE's and discussions of negotiation positions. Files: 1/13, 22, 28, 30, 31; 2/11-13, 18; 11/1, 2, 6-8, 14-16; 13/4-11.

5. Miscellaneous files (1873-1971). The subjects of the files in the last sub-group are too diverse to completely summarize. Some may actually belong in sub-group 4. The largest segment has data from Port John, particularly resident fish data from predator studies in Port John Lake. This includes sampling data and scales, gillnet catch data, population estimates and mark recovery data. There are also weir counts, stream survey data and a discussion of ocean mortality of sockeye. Another small group of files have data from experiments at Nile Cr., Cowichan L. and possibly elsewhere. They were assessing the effects of various salinities and oxygen concentrations on survival and behaviour of juvenile salmon and trout. For the rest of the sub-group we refer you to the register. Files: 1/5, 6, 9, 10, 12, 15, 18-20, 26, 27; 2/1-3, 5-7, 9-11, 15, 16, 19-25, 33, 36; 3/1, 4, 16, 38; 4/6, 20, 22, 24-26, 32, 33, 36; 5/7, 10, 13; 6/20; 11/3, 5, 13; 12/2, 18.

HISTORY/SOURCE: Deposited by M. Shepard.

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Kokanee / Steelhead / Masu / Salmon / Fish / Plankton / Other

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

All B.C. Areas

Location

High Seas / Asia / Japan / Hokkaido Is. (Japan) / Tokachi R. (Japan) / Alaska / S.E. Alaska / Bare L. (Alaska) / Bristol Bay (Alaska) / Karluk system (Alaska) / Skeena system (4) / Terrace / Kleanza Cr. (4-2) / Granite Cr. (4-2) / Lakelse system (4-2) / Lakelse L. (4-2) / Lakelse R. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Sockeye (Eliza) Cr. (4-2) / Williams Cr. (4-2) / Bear L. (4-3) / Morice L. (4-3) / Babine system (4-4) / Babine L. (4-4) / Morrison L. (4-4) / Atnarko R. (8) / Hooknose Cr. (8) / Port John (8) / Port John L. (8) / Rivers In. (9) / Queen Charlotte Str. (12) / Johnstone Str. (12-13) / Glendale R. (12) / Georgia Str. (50) / Nile Cr. (14) / Cowichan L. (18) / Fraser system (29) / Adams R. (29-5) / Chilko R. (29-6) / British Columbia / Washington State / Columbia R. / Wolcott Slough (US) / Atlantic Ocean

Aspect

Abundance / Acclimation / Activity patterns / Aerial photography / Age composition / Aging methods / Angling / Aquaculture statistics / Aquatic plants / Barriers / Bathythermographic data / Benthos / Bibliographies / Body size / Body weight / Calibration / Catch composition / Catch/effort / Catching methods / Census / Coastal fisheries / Computer programs / Dissolved oxygen / Diurnal variations / Economic analysis / Embryonic development / Endoparasites / Escapement / Exclusive economic zone / Experimental culture / Experimental fishing / Exploitation / Feasibility / Fecundity / Fish catch statistics / Fishery economics / Fishery regulations / Fishery statistics / Fishing power / Fishways / Freshwater ecology / Freshwater fish / Gear research / Genetics / Geographical distribution / Gillnets / Growth / Habitat improvement (Fertilization) / Habitat improvement (Physical) / Hatcheries / Historical account / Horizontal distribution / Inland fisheries / International agreements / Lake morphology / Length-weight relationships / Lenitic currents / Lesions / Lethal limits / Life history / Limnological data / Longlining / Mapping / Marking / Mesh selectivity / Metabolism / Methodology / Migrations / Mortality / Orientation behaviour / Pelagic fisheries / Plankton / Plankton collecting devices / Population density / Population number / Precipitations (Atmospheric) / Predation / Production (Biological) / Proposed research / Redd sampling / Regression analysis / Reproductive behaviour / Reproductive organs / Rheotaxis / River discharge / Salinity effects / Salinity tolerance / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sea law / Seining / Sex ratio / Sexual maturity / Size distribution / Spawning grounds / Spawning migrations / Spawning seasons / Sport fishing statistics / Statistical analysis / Stock identification / Stocking (Organisms) / Stomach content / Tagging / Temperature effects / Test fishing / Translations / Trap fishing / Trolling / Vertical distribution / Water analysis (Chemical) / Water depth / Water temperature / Weather conditions / Weirs / Yield predictions / Zooplankton

REGISTER: RECORD GROUP AH

AH/1/1 High Seas (H/S) sockeye - female maturity data (gonad weight/body weight ratios), with ages and lengths, 1965.

AH/1/2 Regressions involving lengths and weights by location of H/S catches, 1962.

AH/1/3 Reports and graphs re: longline catches of H/S sockeye - vertical distribution of salmon by location, with data from bait studies.

AH/1/4 Reports re: problems with salmon longlines.

AH/1/5 Sockeye escapement data, with summaries of commercial packs for the period 1873-1955, and stock-recruit data (1934-55).

AH/1/6 (1)Spawning ground surveys, behavioural studies and weekly counts from Hooknose Cr. for sockeye, chum and pinks (1951); (2)ocean mortality in sockeye (1951); and (3)a report on fertilization of Bare L., Alaska.

AH/1/7 Test fishing data and Area 3 and 5 catches, 1955-56.

AH/1/8 Analysis of sockeye and pink test fishing and escapement data for Skeena R. salmon investigation, 1955-60.

AH/1/9 Catches of Fraser R. sockeye and pinks, 1951-56.

AH/1/10 Rapid graph solution of time vs. percent effect curves (statistical procedures for obtaining error limits and confidence intervals), 1949.

AH/1/11 Lake productivity and lake fertilization proposals related to sockeye in the Skeena/Babine region, with notes on water quality analysis techniques.

AH/1/12 [No file]

AH/1/13 US/Canada relations - catch/effort data.

AH/1/14 Japanese catches of pink and chum and correspondence re: exchange visit.

AH/1/15 IPSFC data - first year marine growth and age composition of Adams and Chilko sockeye.

AH/1/16 Weekly sampling data - age composition of Skeena R. sockeye, 1925-48.

AH/1/17 H/S catches, efficiency of different sizes of nets and chum maturity data, 1955-60.

AH/1/18 Misc. text and rough drafts re: artificial propagation of Pacific salmon in the US Pacific N.W., with history and results.

AH/1/19 Proposals and data re: application of fish cultural methods to increase salmon production (freshwater enhancement).

AH/1/20 "Factor reports" - relationship between spawning density and stock abundance.

AH/1/21 Japanese mothership fishery and composition of sockeye, chum and pink catches by origins, 1955-60.

AH/1/22 Reports re: the 12 mile fishing zone, 1958 and 1967.

AH/1/23 Bait return analysis for H/S longline catches of all salmon spp. and steelhead.

AH/1/24 H/S chum catch, tag recovery and interception data, 1956-62.

AH/1/25 Exchange of scientists with Japan and information about a masu study.

AH/1/26 Atlantic salmon reports - Greenland fishery and Atlantic Ocean research.

AH/1/27 Forecasting of sockeye, chum and pink runs on B.C. coast, 1965.

AH/1/28 Notes for INPFC negotiations, 1965.

AH/1/29 Salmon fishery research - proposals for determining stock origin in N. Pacific fishery, 1965-66.

AH/1/30-31 Notes, reports and minutes from N. Pacific Treaty Negotiations, 1963-64.

AH/2/1-2: Daily upstream and downstream counts of juveniles and adults, probably at Hooknose Cr. fence:

...2/1 Cutthroat and Dolly Varden (1947-64).

...2/2 Steelhead (1948-61).

AH/2/3 Survey of sockeye spawning grounds in Atnarko R., 1951.

AH/2/4 Offshore age analysis and migration routes for returning Japanese chum, 1962.

AH/2/5 US report on an artificially propagated run of chum at Wolcott Slough (with text and photos), 1951-52.

AH/2/6 "Optimum seeding" - notes on spawning density, population dynamics and predation.

AH/2/7 "Enumerating a sockeye escapement" - comparison of length frequency distributions in gillnet catch and escapement, Rivers In., 1960.

AH/2/8 Pacific salmon regulations and Skeena R. Salmon Management (file report).

AH/2/9 Reports and summaries of food studies in the Karluk watershed, 1939-41 and 1944-55.

AH/2/10 (1)"Age designation in salmon" (several methods); (2)swim bladder parasite inspection data; and (3)list of M.P. Shepard's publications.

AH/2/11 (1)Copies of figures for INPFC Bull. 23 on spawning populations of Canadian salmon; (2)statement of Canadian position on a pink salmon protocol and mutual problems in SE Alaska and northern B.C.; and (3)FRI forecast for Bristol Bay sockeye in 1966.

AH/2/12 [No file]

AH/2/13 Draft: "Migration of Pink Salmon Through Channels on the Mainland Side of Queen Charlotte Str. and Upper Johnstone Str." (Hourston) - analysis of statistical procedures, 1959.

AH/2/14 INPFC reports and correspondence, 1967.

AH/2/15 History of the Bristol Bay Investigation (1938-56), 1967.

AH/2/16 Commercial catch and pack figures for sockeye, pink and chum, 1900-1962.

AH/2/17 Age composition data and charts showing H/S migration routes of chum.

AH/2/18 Summary of commercial catches of sockeye, pink and chum for INPFC countries, 1900-1961.

AH/2/19 Comparisons of fish activity and general information about lethal oxygen tests and acclimation experiments.

AH/2/20 NRC report on carbon dioxide asphyxiation of freshwater fishes, with acclimation data.

AH/2/21 Nile Cr. and Cowichan L. experiments - salinity adaptation by chum fry, 1948.

AH/2/22 Rheotactic responses of Pacific salmon fry to salinity changes.

AH/2/23 Lethal oxygen conditions and adjustments - acclimation studies on sockeye, pink, chinook and brown trout.

AH/2/24 Abstracts of food and metabolism studies.

AH/2/25 Computer program for single linear regression (SLR).

AH/2/26 Length frequencies of squawfish in Lakelse L., by gillnet mesh size, 1954.

AH/2/27 Effects of weather on sport fishery at Lakelse L., 1950.

AH/2/28 (1)Work schedules for analysis of Skeena lakes data (experimental netting, stomach analyses, etc.) (1944); (2)stomach contents data (1953); and (3)fence records of sockeye and coho smolt numbers at Lakelse R. (1953).

AH/2/29 Age composition, sex ratios and mean lengths and weights of cutthroat trout gillnetted at Lakelse L., 1952-54 (Bilton).

AH/2/30 Rough drafts and raw data on plankton in Skeena lakes, 1944-48.

AH/2/31 Lakelse L. plankton analyses (species composition and abundance), 1949-52.

AH/2/32 Notes, photos and raw data on morphometry of Lakelse L.

AH/2/33 Spawning behaviour of Port John pink and chum, 1951, and graphs re: meristics of haemal arches for salmon from various Alaskan rivers, 1951-58.

AH/2/34 Distribution and abundance of plankton in Lakelse L., 1947-52.

AH/2/35 Weather reports and water temperatures and levels for the Lakelse region, 1947-50.

AH/2/36 Aerial survey photos and maps of Atnarko R.

AH/2/37-38 Climatological registers for Lakelse L., 1946-53.

AH/3/1 (1)Notes on mapping of Williams Cr.; (2)trout scales from creel census, Williams Cr., 1954; and (3)Dolly Varden and cutthroat trout scales from Port John, 1951.

AH/3/2 Annual report (graphs and photos): "Design and operation of smolt traps on Lakelse R.".

AH/3/3 Length/weight relationships of cutthroat trout at Lakelse L., 1951.

AH/3/4 Estimation of the populations of Dolly Varden and cutthroat trout in Port John L. (with stomach contents data), 1951.

AH/3/5 Counts of lake fish at Lakelse R. fence and recoveries of marked lake fish, with length data, 1954.

AH/3/6 Stomach contents of cutthroat trout - sockeye predation studies at Lakelse L., 1944-54.

AH/3/7 Tagging, counting and netting of predators in Lakelse L. and R., 1947-52.

AH/3/8 Gillnetting of lake fish with length and weight data, fall, 1952.

AH/3/9 Length frequencies of predators and maps of gillnetting stations in Lakelse L., 1953.

AH/3/10 Weekly weather summaries for Lakelse L., 1944-61.

AH/3/11 "Plankton counts at Lakelse L.", 1954.

AH/3/12 Water temperatures for Lakelse R., 1946-53.

AH/3/13 Temperatures of Lakelse L. (BT's), Lakelse R., Williams Cr. and Scully Cr., 1952-54.

AH/3/14 Water levels and temperatures for Lakelse L. and R. and fence counts, 1954.

AH/3/15 Plankton experiments at Lakelse L., 1954 - (1)test of reliability of plankton pump; (2)vertical distribution of plankton for 24 hour period; and (3)a 1949 plankton survey chart.

AH/3/16 Relationship of rainfall to spawning ground productivity, 1946.

AH/3/17 Lakelse L. winter survey, with Scully Cr. redd sampling, 1947-48.

AH/3/18 Williams and Scully Cr. spawning surveys, 1946-49.

AH/3/19 Lakelse L. - bottom fauna and mapping of lake bottom, 1945.

AH/3/20 Bottom fauna composition from Babine and Morrison Ls. (data from dredging operations), 1946.

AH/3/21 Location and abundance of the aquatic flora of Lakelse L.

AH/3/22 Terrace and Lakelse monthly weather reports, 1946-53.

AH/3/23 (1)Stomach contents data from sockeye smolts and (2)discharges of creeks in the Lakelse system, 1954.

AH/3/24 Lakelse L. - (1)water surface temperatures, 1944-48, and (2)water circulation, 1954.

AH/3/25 "Deep Hole" temperature records in Lakesle L., 1944-54.

AH/3/26 Graphs of water levels and discharges for Lakelse L. and R., 1946-53.

AH/3/27 [No file]

AH/3/28 Photos of the Lakelse R. fence and smolt trapping operations.

AH/3/29 Records of smolt catches in pen 2 of Lakelse R.(?) fence, 1955(?).

AH/3/30 Sockeye smolt samples from Bear and Morice Ls., 1955 - lengths, weights, ages, sexes and stomach contents.

AH/3/31 Records of smolt catches by pen of Lakelse R. fence(?), 1955.

AH/3/32-34 Records of smolt catches in pens 1,3,4 and 5 of Lakelse R. fence, 1955.

AH/3/35 Effects of the Lakelse R. fence on migrating sockeye smolts (injury records for each pen).

AH/3/36 Smolt counts in each pen (Lakelse R. fence?), 1954.

AH/3/37 Adult tag recoveries at Williams Cr., with lengths, weights, sexes and conditions, 1954.

AH/3/38 (1)Mortality, timing, abundance, fecundity, etc. of adult sockeye in Lakelse system (1944-54); (2)photos of Lakesle R. fence(?); and (3)"Objectives of Pacific Sockeye Research", 1953.

AH/3/39 Rough drafts and file reports with data on accuracy of tagging for enumerating adult sockeye at Lakelse L. (comparisons with fence counts), 1939 and 1952-54.

AH/3/40 Williams Cr. fence records, 1954 - injuries, dead on fence, tag recoveries, etc.

AH/3/41 (1)Lakelse studies - sampling and count data from fences. Samples include juvenile and adult sockeye, coho, steelhead, pinks and resident fishes; (2)rough drafts of a paper in which tagging estimates of escapements in Lakelse system are compared to fence counts; (3)subsequent recoveries of marked Lakelse sockeye smolts in the fishery (1945-55); and (4)tagging estimates of the rate of travel of adult sockeye up the Skeena system (1944-48).

AH/3/42 [No file]

AH/3/43 Sockeye and coho smolt counts at Lakelse R. fence (with "coarse" fish data), 1953.

AH/3/44 Daily examination sheets for fence injuries of Lakelse R. smolts, 1953.

AH/3/45 Discussions and data regarding seining, trapping and marking of sockeye smolts at the outlet to Lakelse L., 1945.

AH/3/46-48 Smolt runs, 1946-48 - daily figures, total run estimates and experiments conducted.

AH/4/1-2 Sockeye smolt runs in Lakelse R., 1952-53, showing relationship between daily run size with water temperature and river levels.

AH/4/3 Sockeye smolt lengths, weights and stomach contents, 1946-48, 1953-54 and 1956.

AH/4/4 (1)Smolt counts at Lakelse R. fence, 1953, and (2)"An Introductory Study of the Young Sockeye Salmon in Lakelse L., B.C.", 1947.

AH/4/5 Williams Cr. and Lakelse R. tagging, tag recovery, sampling and stream survey data, 1946-54.

AH/4/6 (1)Sockeye run estimates by tributary, as determined by tagging, 1944; and (2) referee comments by Ricker and Shepard involving use of Petersen vs. Schaefer methods of obtaining abundance estimates from tag data (1952).

AH/4/7 Williams Cr. tagging and sampling data, 1953.

AH/4/8 Visual and tagging estimates of sockeye spawning at Williams Cr., 1952.

AH/4/9 Adult sockeye tagging data from Lakelse R. fence (1952) and Williams Cr. fence (1953). Data include tag recoveries, diel series, injury data, diaries and sampling data (eg. lengths, weights and conditions).

AH/4/10 Data from sockeye surveys of Lakelse L. tributaries, with estimates of runs, 1952-55.

AH/4/11 Lakelse R. fence counts and calculation of the efficiency of the fence. Includes tagging data and estimation of true run as determined by tagging, 1947-48, 1952-54.

AH/4/12 Report on timing and exploitation of Lakelse adult sockeye runs, 1952-55.

AH/4/13 Surveys of adult sockeye mortalities in Lakelse L., 1953.

AH/4/14 Live and dead counts, tag recoveries and lengths, weights and conditions of sockeye spawners at Williams Cr. and other Lakelse L. tributaries, 1954.

AH/4/15 Estimation of a practical tagging ratio for getting population estimates of sockeye spawners at Williams Cr., 1939.

AH/4/16 Fence counts of sockeye entering Williams Cr. and counts of dead sockeye found on the lake. Lengths, weights, conditions, fecundities, testis weights, dead on fence data and tag recovery data, 1952.

AH/4/17 Sockeye movement in the Blackwater side channel to Williams Cr., 1953 (proposal to block it).

AH/4/18 Williams Cr. sockeye - fence counts, size and sex compositions, and tag recoveries. Includes stream life expectancy data. 1949-55.

AH/4/19 File reports, 1944-48: (1)"Experiments with sockeye yearlings" (marking mortalities and efficiency of marking); and (2)statistical treatments of counts in order to estimate total adult sockeye run in Lakelse system.

AH/4/20 Spawning ground density survey from Glendale R., 1961-62.

AH/4/21 Weather conditions and water temperatures and levels from Lakelse L., 1954.

AH/4/22 Survey of Dolly Varden and cutthroat trout populations in Port John L., 1951 (with notes, drafts and raw data).

AH/4/23 Procedures for winter netting in Lakelse L., 1948.

AH/4/24 Records of netting and marking of Dolly Varden and cutthroat trout in Port John L.

AH/4/25 Port John L. predator studies: catch and mark recovery data for Dolly Varden and cutthroat trout.

AH/4/26 US hatchery records - plants and returns, 1920-60.

AH/4/27 Field plans, progress reports, diaries and data for Kleanza Cr. and Lakelse experimental hatcheries, 1958.

AH/4/28 Kleanza Cr. experimental hatchery - numbers of pink fry that were released, water temperatures, egg mortalities and observations.

AH/4/29 Water temperatures and records of flow experiments at Kleanza hatchery, 1957.

AH/4/30 Kleanza hatchery data, 1957-58: (1)water temperature vs. egg development/mortality; and (2)effect of flow on fry behaviour.

AH/4/31 Photo and map of Skeena R. and map of Lakelse L.

AH/4/32 Escapements of each species by District (District 1 - Areas 28-29, District 2 - Areas 1-10 and District 3 - Areas 11-27), 1950-55.

AH/4/33 Salmon pack/escapement comparisons, by area, for all spp., 1910-48.

AH/4/34 Notes and rough drafts for 1956 report on Skeena R. sockeye fishery - commercial pack, Indian food fishery, regulations, catch/effort and rainfall/pack relationship (1875-1956).

AH/4/35 Data from Skeena R. test fishing (all salmon spp.), with catch/weather relationships, 1955-56.

AH/4/36 Salmon Stock Assessment reports for chum and pinks - stock-recruit relationships, 1955-56.

AH/5/1 Escapement and exploitation data for the Skeena system (including small streams), 1908-57.

AH/5/2 Sex and maturity (gonad weight) data from H/S tagging of pinks and sockeye, 1966.

AH/5/3 (1)Maturity and egg data from H/S salmon taken by "G.B. Reed"; and (2)weights of kokanee eggs. 1965.

AH/5/4 Histological study of immature gonads (methods and material), 1966.

AH/5/5 Kokanee scale data with ages and circuli counts from Skeena/Babine region, 1965.

AH/5/6 Photos and negatives of salmon gonads (male and female), showing various stages of maturity, 1965.

AH/5/7 Computer printouts of length/weight regressions by sex.

AH/5/8 Misc. Japanese salmon research bulletins re: "Studies on the Oceanic Jet Stream" and sexual maturity of masu.

AH/5/9 Tag recoveries and age data by H/S location, 1965-67.

AH/5/10 Mean egg size data, by species.

AH/5/11 Maturity indices (gonad weight/body weight) for H/S pink and chum that were caught in May and June.

AH/5/12 Reference data on sexual maturity.

AH/5/13 Length/weight regression data for sockeye (1956) and pinks (1951-56 and 1961).

AH/5/14 Reference data on gonads and genetic studies.

AH/5/15 A report on a general survey of resident lake fish in Lakelse L., 1944.

AH/5/16-17 Spring and fall gillnetting on Lakelse L. - catch compositions with sample data, 1953.

AH/5/18 Lakelse L. cutthroat - data on the relationship of scale parameters to body length, 1953-55.

AH/5/19 Lakelse L. winter gillnetting - catch composition and sampling data, 1953-54.

AH/5/20 Lakelse L. and Terrace air temperatures, 1944-54.

AH/5/21 Ages, depth distribution and length frequencies of species caught in gillnets in Lakelse L., 1952-53.

AH/5/22 Lengths, weights, ages and sex of cutthroat trout in Lakelse L. (from creel census), 1945-52.

AH/5/23 Catch composition and sampling data from summer gillnetting on Lakelse L., 1954.

AH/5/24 Catches, size composition, length frequencies and relative growth of resident fish gillnetted in Lakelse L., 1953.

AH/6/1-7/1: Lakelse surveys and one file with data from Port John L.:

...6/1 Sampling data (by spp.) from trap-netting of resident fish, spring, 1954.

...6/2 Length frequencies of cutthroat trout caught in traps, 1954.

...6/3-4 Sampling data (by spp.) from spring and summer gillnetting, 1955.

...6/5 Sampling data (by spp.) from experimental netting, June, 1955.

...6/6 Lengths (by spp.) of fish from the river sport fishery, May, 1955 .

...6/7 Catch composition by gear from creel census, 1953.

...6/8 Summary of catches by depth and location from small mesh gillnetting, April, 1955.

...6/9-11 Catch composition by gear from lake creel census, 1950-51 and 1954.

...6/12 Ages of gill-net caught squawfish and Dolly Varden from scale samples, 1953-54.

...6/13 Catch methods, catch per unit effort and age and sex composition of cutthroat trout from lake creel census, 1955.

...6/14 Set records, catch composition and sampling data (by spp.), 1946.

...6/15 Gillnetting and trapping records - summaries of sets and tag recoveries, with sampling data (by spp.), 1954.

...6/16 "Bilton's Lakelse Studies" - notebooks with lake survey data and notes.

...6/17 Physical data such as weather and ice conditions (9 notebooks), 1949.

...6/18 Netting and plankton studies, 1949.

...6/19 Spawning ground surveys of sockeye and resident fish, with sampling data, scale samples and tag recovery data (25 notebooks), 1950-55.

...6/20 Twenty-one rough notebooks from 1951-54 with information on: (1)lengths and weights of trout in Port John L. (with notes on metabolism aspects); (2)records from Lakelse R. fence such as counts of salmon and resident spp., dead-on-fence data and sampling data; (3)Lakelse camp records dealing with personnel and materiel matters; and (4)chemical analysis of water from Lakelse R. and Scully Cr.

...6/21 Lakelse R. fence counts of sockeye, pink and cutthroat, 1954.

...6/22 Recoveries of dead sockeye and resident fish on spawning grounds, with scale samples and sampling data (unknown years).

...6/23 Maps showing obstacles on Granite, Scully and Sockeye (Eliza) Crs.

...7/1 (entire box) (1)Stomach contents data and gonad weights of cutthroat trout, 1954; (2)squawfish stomach contents data, 1944-49; (3)age composition of the cutthroat trout run, 1954; (4) data on stomach contents of cutthroat trout by fish size, catch location and time of year, 1945-52; (5)"general survey" of cutthroat trout, Dolly Varden and squawfish, with lengths and sexual maturities by size class, 1954; and (6)experimental fishing and creel census data, 1944-57.

AH/8/1-9/1 (two entire boxes) H/S samples (mainly of sockeye and pinks) and kokanee samples - microscope slides of gonad and viscera sections for an histological study of sexual maturity, 1964-66.

AH/10/1 (entire box) Microscope slides (as in boxes 8 and 9) and computer printouts of maturity indices and catches arrayed by maturity indice for H/S sockeye and pink, 1965-66.

AH/11/1 IPSFC "troll problems" (troll interceptions of Fraser stocks).

AH/11/2 Background material re: relative US and Canadian catches of pinks, 1958-70.

AH/11/3 Anadromous Fishes Group: Ethology - orientation study proposal, 1968.

AH/11/4 Maturity indices for H/S chum (by area of Pacific), with sampling data, 1956-58.

AH/11/5 (1)Chinook and coho sampling data from mark recoveries in the Columbia R. hatchery evaluation program, 1968; and (2)Japanese catches of H/S chum, by area, 1960-66.

AH/11/6 Troll and net catches of chinook in Alaska and Washington fisheries, 1958-59.

AH/11/7 Confidential memoranda re: International policies - (1)H/S fishing and exploitation of national stocks and (2)interceptions and treaty material for Law of the Sea Conference, 1971.

AH/11/8 Confidential minutes and memoranda from meetings re: International fishery.

AH/11/9-10 Japanese chum hatchery records, 1965-66.

AH/11/11 Photos of Japanese hatchery and fishery operations.

AH/11/12 Text drafts and photos for report on Japanese hatcheries and fish culture, 1969(?).

AH/11/13 (1)Evaluation of and proposals for an aquaculture program and (2)diary of Shepard's visit to Japan.

AH/11/14 Cdn. and US catches of chum, 1958-69.

AH/11/15 Cdn. and US net and troll catches of pinks, 1959-69.

AH/11/16 Salmon catches and estimates of interceptions, 1956-59.

AH/11/17 "History of Japan" - background material for exchange program.

AH/11/18 Rough draft of a report on Hokkaido hatcheries.

AH/11/19 "Rivers of Hokkaido" (FRBC MS Rep. No. 1013) - data, bulletins and drafts for report.

AH/12/1 Japanese hatchery data concerning chum fry.

AH/12/2 Report on age composition of North American and Asian chum, by Tamotsu Yonemori.

AH/12/3 "Artificial Propagation of Salmon" in Japan, 1968.

AH/12/4 Translated Japanese reports on their coastal and H/S fisheries.

AH/12/5 "Economic Evaluation of Hokkaido Hatchery System" - rough draft of a paper on benefits to the fishery.

AH/12/6-7 "Hokkaido Chum Studies" - rough drafts and tables for publication.

AH/12/8 History of Japanese hatchery efforts.

AH/12/9 Misc. files on Japan - temperature records, economics, tagging and marking records and correspondence.

AH/12/10 Misc. reports and data re: contribution of chum hatcheries to Japanese commercial fishery.

AH/12/11 Cost/benefit analysis of Hokkaido chum hatcheries, 1970.

AH/12/12 Japanese reports on hatchery methods, techniques and production.

AH/12/13 Figures and tables for publication of Japanese hatchery report.

AH/12/14 (1)Details of hatchery operations on the Tokachi R. system and (2)rough drafts of the Hokkaido report.

AH/12/15 Annual report of production statistics for Japanese fishery and aquaculture, 1964.

AH/12/16 Evaluation of Hokkaido hatcheries through tagging and recovery programs.

AH/12/17 Rough draft: Distribution of Japanese H/S chum and efficiency of commercial fishery.

AH/12/18 (1)Conservation measures in the 1971 salmon fisheries (by area); (2)history of Hokkaido hatcheries; and (3)report on a chum fry study (Japanese coastal water ecology).

AH/13/1 (1)Survey of the Hokkaido hatchery program, 1966-68; and (2)life history of chum salmon and benefits to commercial fishery (data from 1954-66).

AH/13/2 Photos of Japanese rivers and hatchery operations, 1960's.

AH/13/3 Japanese fisheries publication (statistical analysis of fishery and hatchery operations), 1957.

AH/13/4 "Original US report with catch interception estimates for Fraser R. pink and sockeye", 1969.

AH/13/5 Background data for international negotiations - prices for each species, 1967-70.

AH/13/6 Cost/production analysis of US fish culture facilities, 1967.

AH/13/7 Notes and memorandum on negotiations with US re: Pacific salmon treaty, 1971.

AH/13/8 Interception statistics for US and Canadian commercial fisheries, 1963-68.

AH/13/9 Notes (background material) on US negotiations re: value of interceptions to each country, 1966-70.

AH/13/10 (1)Graphs of US and Canadian catches, 1950-63; and (2)cost of IPSFC fishway facilities on Fraser R., 1944-70.

AH/13/11 Misc. notes and data: numbers of spawners, Fraser escapements, weights, prices and moving means of interception values, 1946-68.

** AI **

SALMONID TRANSPLANTS IN B.C. AND EARLY HATCHERY RECORDS

YEARS: 1880-1975, 1977, 1979

SIZE: 2 boxes

DESCRIPTION

This group has background material for V. Aro's salmon transplant manuscript (Tech. Rep. 861). It is a collection of bibliographies, hatchery records, correspondence, publication excerpts and notes on an historical survey of transplant attempts in British Columbia. The species include all the North American salmon species, Atlantic salmon and various other trout species.

HISTORY/SOURCE: V. Aro

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Kokanee / Salmon / Fish

Life Stage

Egg / Fry / Juvenile

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-4 (Babine) / 9 (Rivers In.) / 12 (Alert Bay) / 14 (Comox) / 18 (Cowichan) / 23 (Barkley Sd.) / 24 (Clayoquot) / 28-1 (North Vancouver) / 29 (Fraser R.) / 29-1 (Lower Fraser) / 29-2 (Mission) / 29-3 (Chilliwack) / 29-4 (Lillooet-Seton) / 29-7 (Nechako)

Location

Skeena system (4) / Lakelse L. (4-2) / Granite Cr. (4-2) / Babine system (4-4) / Morrison L. (4-4) / Rivers In. (9) / Vancouver Is. (51) / Nimpkish system (12) / Puntledge R. (14) / Rosewall Cr. (14) / Qualicum (Big Qualicum) R. (14) / Cowichan system (18) / Robertson Cr. (23) / Kennedy L. (24) / Capilano R. (28-1) / Fraser system (29) / New Westminster / Pitt L. (29-1) / Harrison system (29-2) / Cultus L. (29-3) / Pemberton / Stuart L. (29-7)

Aspect

Acclimatization / Annotated bibliographies / Annual reports / Bibliographic information / Directories / Documentation / Escapement / Experimental culture / Fish catch statistics / Fish culture / Freshwater fish / Growth / Hatcheries / Historical account / Introduced species / Mapping / Quantitative distribution / Sport fishing / Stocking (Organisms) / Survival / Tagging

REGISTER: RECORD GROUP AI

AI/1/1 Annotated bibliography of publications on culture and breeding of fish, 1884-1973.

AI/1/2 Excerpt from "Annual Report on Fish Culture" re: no. of eggs received and fry released from various B.C. hatcheries, 1935.

AI/1/3 "Alphabetical listing and geographical description of names used in this report" (Appendix B of Tech. Rep. no. 861), 1979.

AI/1/4 Prints of figures for Tech. Rep. no. 861, 1979.

AI/1/5 Blueprints and specifications for pond construction at Cowichan hatchery, 1938.

AI/1/6 (1)Description of Vancouver Island sport fishery and plans for enhancement, 1931; and (2)article re: transplanting of Pacific salmon to eastern Canada, 1968.

AI/1/7 B.C. hatchery records - statistical summaries by species (sockeye, chum, chinook, coho and kokanee) and by hatchery, 1885-1935.

AI/1/8-16: B.C. hatchery records:

...1/8 Kennedy L., 1918-35.

...1/9 "Skeena" (Lakelse L.), 1914-36.

...1/10 Pitt L., 1921-37.

...1/11 Stuart L., 1918-30.

...1/12 Cowichan L., 1914-36.

...1/13 Rivers In., 1914-38.

...1/14 Granite Cr. (Lakelse L.), 1913-14.

...1/15 Pemberton, 1914-36.

...1/16 "Babine" (Morrison L.), Cultus L., New Westminster and Harrison, 1920's-1930's.

AI/1/17 Index cards with references and information.

AI/1/18 Reports and correspondence on egg transplants - collecting and transplanting eggs from one system to a hatchery in another system (Fraser, Rivers In., Skeena, etc.). Also contains blueprints of early provincial hatcheries.

AI/2/1 Dept. of Environment correspondence re: transfers of salmon and trout eggs and juveniles within and into B.C. and a list of annual reports for B.C. hatcheries.

AI/2/2 Historical data on B.C. hatcheries, with correspondence and a list of years of operation in the 1884-1937 period, 1975-77.

AI/2/3 (1)Record of chinook and coho culture at (Big) Qualicum R., Robertson Cr., Capilano R. and Rosewall Cr. hatcheries and Puntledge R. spawning channel, 1965-72; and (2)summary of 1974 coded wire tagging program for coho and fall chinook (to assess the effect of time of release on marine survival, growth and catches, with a comparison of hatchery and wild stocks).

AI/2/4 B.C. hatcheries: (1)summaries of egg collections and distribution of eggs and young, 1884-1941; (2)history of each B.C. hatchery; and (3)chronology of hatchery inspectors and supervisors, 1884-1947.

AI/2/5-9 B.C. hatchery records by species and hatchery from the early 1900's for sockeye, chinook, coho, chum and pink.

AI/2/10 Information on the Nimpkish hatchery and the Nimpkish R. system - histories, commercial packs, escapements, correspondence and summaries, 1880-1970.

AI/2/11 (1)Notes on transfers of non-salmon fishes into B.C., 1890-1928, and (2)memo re: transplanted fish, 1970-71.

AI/2/12 Data on Atlantic salmon egg transfers to B.C., 1904-33, and distribution of trout from B.C. hatcheries to various areas in B.C., 1901-37.

AI/2/13 Original figures for Aro's Tech Rep. No. 861.

** AJ **

MERISTICS X-RAYS

YEARS: 1953, 1958-59, 1964-67

SIZE: 36 boxes

DESCRIPTION

The Meristics Laboratory took X-rays of salmon that were caught in the High Seas program. These X-rays were used to count branchiostegals, gillrakers, fin rays and vertebrae, as part of an effort to identify North Pacific salmon stocks by nation (see Record Group AM). The investigators also hoped to forecast runs by using meristics data to apportion the catches of off-shore test fishing. Most of the samples are High Seas salmon but there is a sub-group of adult samples taken in the coastal zone, in the estuarine test fishery and in freshwater. Files in this sub-group also include X-rays of kokanee samples and some X-rays of pinks from Newfoundland.

Note: (1)Area "4A" was a code used to identify catches from Skeena R. Test fishing. "Area 4" refers to commercial catches. (2)Areas 29A, B, C and D are management sub-Areas in the lower mainland: 29A = waters off the mouth of the Fraser R.; 29B and C = south and north arms, respectively, of the Fraser R. below New Westminster; and 29D = the Fraser R. from New Westminster to Mission. (3)Area 32 is synonymous with "High Seas".

HISTORY/SOURCE: V. Aro, M. Shepard and W. Barner.

INDEX TERMS

Species

Sockeye / Pink / Coho / Chinook / Kokanee / Salmon

Life Stage

Ocean fish / Mature

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 7 (Bella Bella) / 8 (Bella Coola) / 9 (Rivers In.) / 12 (Alert Bay) / 20 (Sooke) / 23 (Barkley Sd.) / 29 (Fraser R.) / 29-1 (Lower Fraser) / 29-5 (Thompson R.) / 29-6 (Quesnel-Upper Fraser) / 29-7 (Nechako)

Location

Newfoundland / High Seas / Skeena R. (4) / Alastair system (4-2) / Williams Cr. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Kitsumkalum (Kalum) system (4-2) / Kitwanga system (4-2) / Kispiox system (4-2) / Stephens Cr. (4-2) / Falls Cr. (4-2) / Nanika R. (4-3) / Sicintine L. (4-3) / Slamgeesh system (4-3) / Bear L. (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Onerka L.

(4-4) / Babine system (4-4) / Babine R. (Lower) (4-4) / Babine R. (Upper) (4-4) / 9-Mile Cr. (4-4) / Morrison R. (4-4) / Tahlo Cr. (4-4) / Fulton R. (4-4) / Tachek Cr. (4-4) / Pierre Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / 4-Mile Cr. (4-4) / Shass (Grizzly) Cr. (4-4) / Rivers In. (9) / Owikeno system (9) / Fraser R. (29) / Fraser system (29) / Adams R. (29-5) / Horsefly R. (29-6) / Middle R. (29-7) / Takla Cr. (29-7) / Narrows Cr. (29-7)

Aspect

Anatomy / Experimental fishing / Jacks / Sampling (Biological) / Test fishing / X-rays

REGISTER: RECORD GROUP AJ

AJ/1/1 Oralix dental and polaroid cassette, 1964.

AJ/1/2 Test films.

AJ/1/3 Japanese H/S sockeye, 1966.

AJ/1/4-14 Japanese H/S sockeye, stations 1-9 and 13, 1965.

AJ/1/15-20 "A" envelopes, cruise VII (all or part sockeye), 1966.

AJ/1/21-24 "A" envelopes, US H/S pinks, 1966.

AJ/1/25-31 "B" envelopes, cruise VII (all or part sockeye), 1966.

AJ/1/32-35 "B" envelopes, US H/S pinks, 1966.

AJ/2/1-5 "C" envelopes, cruise VII (all or part sockeye), 1966.

AJ/2/6 "C" envelope, US pinks, 1966.

AJ/2/7-8 "D" envelopes, cruise VII, sockeye, 1966.

AJ/2/9 "D" envelope, US pinks, 1966.

AJ/2/10 "E" envelope, cruise VII, 1966.

AJ/2/11 US "E" tags, 1966.

AJ/2/12 US "E" tags, pinks, 1966.

AJ/2/13-41 Sockeye, pinks or unidentified species, cruise VII, 1966.

AJ/2/42-57 US H/S sockeye, 1966.

AJ/3/1-2 Area 9 test fishing, 1966.

AJ/3/3-10 Area 9 (Rivers Inlet), 1966.

AJ/3/11 Area 4A (Skeena R. test fishing), 1966.

AJ/3/12 Area 4A sockeye, 1966.

AJ/3/13 Area 12 test fishing, pinks, 1966.

AJ/3/14-19 Area 4A pinks, 1966.

AJ/3/20-21 Area 4A, 1966.

AJ/3/22 Area 4, 1966.

AJ/3/23-24 Area 4A, 1966.

AJ/3/25-26 Area 8 (Bella Coola) pinks, 1966.

AJ/3/27-28 Area 8 shore samples, 1966.

AJ/3/29-36 Area 29 test fishing, 1966.

AJ/4/1 Area 29 sockeye, 1966.

AJ/4/2 Area 29D, 1966.

AJ/4/3-5 Area 29 shore samples, 1966.

AJ/4/6 Area 12 test fishing, pinks, 1966.

AJ/4/7-9 Adams R. test fishing, sockeye, 1966.

AJ/4/10 H/S sockeye, 1964.

AJ/4/11-41 H/S sockeye, 1966.

AJ/4/42-43 H/S pinks, 1966.

AJ/4/44-48 H/S sockeye, 1966.

AJ/4/49-12/68: H/S sockeye and pinks caught in 1966. Files are by species and fishing set:

...4/49-6/37 Sets C024-29, C034, C036-51, C053, C056, C058-60, C062-66, C068, C070-72, C074-79, C081-87, C089-93, C095-106, C108-109 and C111-126.

...6/38 Sockeye, set A005.

...6/39-43 Sets K001 and K006-7.

...6/44-8/22 Sets A060-73, A075-81, A084-85, A088-89, A098-111, A113, A122-26, A128, A130, A132-33 and A166.

...8/23-10/53 Sets B002, B004-23, B025, B027-38, B040-49, B054-70, B073-75, B077-78, B096-123, B125, B128-31, B134, B137-39, B141-44, B175, B179-82 and B187.

...10/54-11/29 Sets A001-14, A018, A020-29, A031 and A033-39.

...11/30-31 Pinks (no set no. or year).

...11/32-64 Sets A040-59.

...11/65-12/68 Sets B079-86, B088-102, B121-22, B124-27, B130-34, B163, B172, B182-84, B186 and B190.

AJ/12/69 H/S coho caught in set B172, 1966.

AJ/12/70-13/34 H/S sockeye and pinks caught in 1966 (cont'd). Files are by species and fishing set, for sets: B131, B134-36, B138, B140, B144, B148-50, B152-63, B165, B177 and B179.

AJ/13/35-14/59: H/S sockeye and pinks caught in 1965. Files are by species and fishing set:

...13/35-54 Sets B001-5.

...13/55-14/52 Sets C020-25, C028, C031-40 and C042-45.

...14/53-59 Sets B050-52.

AJ/14/60 H/S chinook caught in set B049, 1965.

AJ/15/1-22/8: H/S catches of sockeye, pinks and unknown spp. (probably sockeye or pinks), 1965:

...15/1-17/36 Sets B006-27, B030, B032-42 and B045-49.

...18/1-19/39 Sets C001-18.

...19/40-22/8 Sets A002-9 and A012-21. File 21/11 is labelled "tank" and has no set number.

AJ/22/9 H/S chinook caught in set A012 in 1965.

AJ/22/10-21 H/S catches of sockeye, pinks and unknown spp. (probably sockeye or pinks) for sets A008-12, 1965.

AJ/22/22 H/S "Fish Films" coded as "AB-62-64", 1965.

AJ/22/23 H/S catches of sockeye by the US - "E Tags", 1965.

AJ/23/1-24/12 H/S catches of sockeye, pinks and unknown spp. (probably sockeye or pinks) for sets A022-37, 1965.

AJ/24/13 Newfoundland pinks (transplants from Lakelse L.), 1966.

AJ/24/14 US "D" tagged sockeye from mixed sets, 1965.

AJ/25/1-17 US "D" tagged sockeye, sets X006-011, 1965.

AJ/25/18-30 Sockeye and pinks caught by the "Investigator No. 1" - sets 1-3,5-9,12,14,16 and 17, 1965.

AJ/25/31 Sockeye from PBS tanks, 1965.

AJ/25/32-26/7 H/S catches of sockeye, pinks and unknown spp. (probably sockeye or pinks) for sets A038-46, 1965.

AJ/26/8-44 US "E" tagged sockeye, sets X024-033 and X038-046, 1965.

AJ/27/1-5 US "E" tagged sockeye or pinks, sets X023-024, 1965.

AJ/27/6-27 US "D" tagged sockeye, sets X015-022, 1965.

AJ/27/28-33 Sockeye from Babine spawning grounds, 1965.

AJ/28/1-2 Sockeye, (Upper) Babine R., 1965.

AJ/28/3-4 Sockeye, (Lower) Babine R., 1965.

AJ/28/5-7 Kokanee from the Babine system(?) - P. McCart's samples, 1965.

AJ/28/8 Sockeye jacks, Babine system, 1965.

AJ/28/9 Sockeye jacks, Adams R., 1965.

AJ/28/10 Sockeye, Babine system, 1965.

AJ/28/11 Sockeye, Sustut L., 1965.

AJ/28/12-13 Sockeye, Kalum (Kitsumkalum) system, 1965.

AJ/28/14 Sockeye, Morrison R., 1965.

AJ/28/15 Sockeye, Alastair system, 1965.

AJ/28/16 Sockeye, 9-Mile Cr., 1965.

AJ/28/17 Sockeye, Kitwanga system, 1965.

AJ/28/18 Sockeye, Stephens Cr. (Kispiox system), 1965.

AJ/28/19 Sockeye, Tachek Cr., 1965.

AJ/28/20 Sockeye, Pinkut Cr., 1965.

AJ/28/21 Sockeye, Falls Cr. (Swan L. system), 1965.

AJ/28/22 Sockeye, Sicintine L., 1965.

AJ/28/23 Sockeye, Fulton R., 1965.

AJ/28/24 Sockeye, Johanson L., 1965.

AJ/28/25 Sockeye, Tahlo Cr., 1965.

AJ/28/26 Sockeye, Williams Cr., 1965.

AJ/28/27-28 Sockeye, Scully Cr., 1965.

AJ/28/29 Sockeye, Slamgeesh R., 1965.

AJ/28/30 Sockeye, Onerka L., 1965.

AJ/28/31 Sockeye, Nanika R., 1965.

AJ/28/32-33 Sockeye, Bear L., 1965.

AJ/28/34-36 Sockeye, Owikeno L., 1965.

AJ/28/37-39 US pinks, 1965.

AJ/29/1-3 Sockeye, Horsefly R., 1965.

AJ/29/4-7 Sockeye, Middle R., 1965.

AJ/29/8 Newfoundland pinks, 1965.

AJ/29/9-15 Sockeye, Fraser R. system, 1965.

AJ/29/16-21 Pinks, Fraser R., 1965.

AJ/29/22 Pinks, Area 20, 1965.

AJ/29/23 Pinks, Area 12, 1965.

AJ/29/24-30/4 Sockeye and jack sockeye, Area 9, 1965.

AJ/30/5-7 Pinks, Area 8, 1965.

AJ/30/8 Pinks, Area 7, 1965.

AJ/30/9-11 Sockeye, Area 4, 1965.

AJ/30/12 Pinks, Area 4, 1965.

AJ/30/13 Kokanee, 4-Mile Cr., 1965.

AJ/30/14 Kokanee from the Babine system - P. McCart's samples, 1965.

AJ/30/15 Sockeye from the Babine system - P. McCart's samples, 1965.

AJ/30/16-19 Sockeye, Babine system, 1965.

AJ/30/20-21 Sockeye, Area 29, 1964.

AJ/30/22-31/11 H/S (Area 32) sockeye caught in 1964, sets
5,6,9-11,15,19-21,23-28,31,47,48 and 61.

AJ/31/12-35 H/S (Area 32) pinks - sets 27,31-33,35-37,39,42-43,45,48,52-59,61-62, 1964.

AJ/31/36-37 Pinks, Area 4, 1964.

AJ/31/38-43 H/S (Area 32) pinks - sets 1-7, 1964.

AJ/31/44 Pinks, Area 8, 1964.

AJ/31/45-64 H/S (Area 32) pinks - sets 8,10,11,13-18,20-29, 1964.

AJ/32/1 Sockeye (small X-rays), 1964.

AJ/32/2 Sockeye, Skeena R., 1964.

AJ/32/3-4 Sockeye, Area 4 test fishing, 1964.

AJ/32/5-33/10 Sockeye, Area 4, 1964.

AJ/33/11-34/24 H/S sockeye and pinks caught in 1967. Files are by species and fishing set, for sets C001-4, C006, C013-14, C016-17, C020-22, C026, C028, C030, C032-33, C038, C040-41, C043-48, C050-56, C060-61, C064-70, C072-74, C077-80, C083-85 and C087.

AJ/34/25-33 Sockeye, Babine L., 1967.

AJ/34/34-35/59 H/S sockeye and pinks caught in 1967. Files are by species and fishing set, for sets A002, A004, A006-7, A009-10, A012-13, A017, A020, A023-25, A028-32, A034-35, A037, A039, A041, A043-45, A048-49, A051, A055-66, A068-69, A071-75, A078-83, A085-86 and A089.

AJ/35/60 Envelope A, 1st and 2nd test films, 1966.

AJ/35/61-62 Envelopes "A" and "B", Takla L., 1966.

AJ/35/63 Kokanee, Frypan Cr. (Takla system), 1966.

AJ/35/64 "No clip 126".

AJ/35/65-66 Envelope B, kokanee, 4-Mile Cr., 1966.

AJ/35/67-68 Kokanee, Lakelse L. system, 1953 and 1964.

AJ/35/69-70 Kokanee, Shass (Grizzly) Cr., 1964.

AJ/35/71 Kokanee, 4-Mile Cr., 1964.

AJ/35/72 Test film of kokanee, 1964.

AJ/35/73 Kokanee, Area 4, 1965.

AJ/35/74 Kokanee, Babine system, 1967.

AJ/35/75-76 Kokanee, Area 4, 1965 and 1967.

AJ/35/77 Miscellaneous X-rays, 1965.

AJ/35/78 Pinks, Lakelse system, 1965.

AJ/35/79 Sockeye, Pierre Cr., 1964.

AJ/36/1 "Mixed Areas", 1966.

AJ/36/2 Kokanee, Narrows Cr. (Takla system), 1966.

AJ/36/3 Kokanee, Scully Cr., 1965.

AJ/36/4 Kokanee "C14BC", Area 23, 1964.

AJ/36/5-7 Kokanee, Babine L., 1958-9.

AJ/36/8 Miscellaneous films.

** AK **

MARINE SALMON INVESTIGATIONS

YEARS: 1955-1971

SIZE: 14 boxes

DESCRIPTION

This is mostly a group of files from the High Seas (H/S) Salmon program of the mid-1950's to early 1970's. The program was part of the INPFC study to determine the national origin of salmon in the North Pacific. Besides some "miscellaneous files", the files and computer print-outs contain:

1. Field records (or computer transcripts of field records) from Canadian and some US and Japanese tagging vessels. The usual gear was floating longlines but seines and gillnets were also used. The set logs typically have catches, tag numbers and basic data (length, sex, condition and scale book number). Weather observations, some oceanographic measurements and natural history logs are also present.

2. Tag recovery information.

3. Summaries of tagging, tag recoveries, catches, CPUE, ages, lengths, etc. There were various summarizing criteria, e.g., number of pinks tagged by Canada, US and Japan from 1956 to 1971, by area, month and year.

4. Finally the H/S data include some small groups on special topics such as food studies, maturity assessments, gear studies, scale measurements, oceanographic summaries and material from a homing experiment at Rivers Inlet.

There is a second general group of data, much smaller than the H/S group, which comes from the mid-1950's studies of inshore populations of juvenile salmon. These data include catches and sampling data such as lengths, weights, sexes and stomach contents. There are analyses of growth, feeding, distribution and relative abundances.

HISTORY/SOURCE: Deposited by V. Aro.

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Salmon / Fish

Life Stage

Juvenile / Ocean fish / Mature

Statistical Area

2W (West Queen Charlottes) / 4 (Skeena R.) / 9 (Rivers In.) / 12 (Alert Bay) / 13 (Quathiaski) / 19 (Victoria) / 20 (Sooke) / 29 (Fraser R.) / 29-6 (Quesnel-Upper Fraser) / 29-7 (Nechako) / 51-2 (W. coast of Vancouver Is.) / 54 (Queen Charlotte Islands)

Location

High Seas / Sea of Japan / Seward Penin. (Alaska) / Bristol Bay (Alaska) / Yukon R. (Alaska) / Dixon Entrance (1) / Chatham Sd. (4-1) / Skeena system (4) / Queen Charlotte Islands (54) / Rivers In. (9) / Juan de Fuca Str. (19-20) / W. coast of Vancouver Is. (51-2) / Horsefly R. (29-6) / Middle R. (29-7) / Puget Sd. (Wash.)

Aspect

Abundance / Age composition / Aquatic birds / Aquatic mammals / Biogeography / Body size / Body weight / Catch composition / Catch/effort / Catching methods / Coastal zone / Cruises / Data collections / Data processing / Echo sounding / Experimental fishing / Exploratory fishing / International organizations / Gear selectivity / Food composition / Gillnets / Growth / Homing behaviour / Horizontal distribution / Length-weight relationships / Longlining / Marine fish / Marking / Oceanographic data / Pelagic environment / Regional variations / Reproductive organs / Seining / Sex ratio / Sexual maturity / Stock identification / Stomach content / Tagging / Temporal distribution / Vertical distribution / Weather conditions

REGISTER: RECORD GROUP AK

AK/1/1 Report: "Committee on Problems of Mutual Concern Related to the Conservation and Management of Salmon Stocks in Southeast Alaska and Northern B.C.", 1963.

AK/1/2 Data on H/S pinks from Cdn. vessels, 1966: (1)vessel, set, condition, length, sex and maturity (gonad wt./body wt. ratio); and (2)length frequencies by vessel and set.

AK/1/3 [No file]

AK/1/4 No. pinks tagged by Canada, US and Japan (by area, month and year), 1956-71.

AK/1/5 Pink salmon length frequencies, 1962-67.

AK/1/6-9: Recovery data for H/S pinks tagged by Canada, US and Japan, 1956-71:

...1/6 "ERLST" for coastal and H/S recovery areas.

...1/7 "ERLST" for 2 degree by 5 degree areas.

...1/8 "KHSTS" for coastal recoveries.

...1/9 "KHSTS" for H/S recoveries.

AK/1/10 Canadian H/S catches of pinks by year, area, vessel and set, 1961-67.

AK/1/11 "Summary of H/S pink recovery data" (Recoveries in all coastal areas of mature pinks that were tagged on the High Seas in odd years by Canada, US and Japan).

AK/1/12 Microfilm of H/S tag return letters recieved at PBS: includes ADFG offshore taggings (years?).

AK/2/1 Detailed release data from FRI for all US H/S tagging in 1961 ("Renown", "Commander", "Ocean Pride" and "Storm"), Circular no. 171.

AK/2/2 Output from "K Bait", 1966.

AK/2/3 (1)Age composition of H/S sockeye, 1966; (2)Canadian catches (all spp.), 1961-66; (3)US catches (all spp.), 1963-66; (4)catches by groups of longline skates, 1966; and (5)bait returns by skate groups, 1966.

AK/2/4 Salmon longline catch and bait return data by skate group and vessel, 1965-67.

AK/2/5 Sampling data by vessel from Canadian H/S catches of sockeye, showing age, length, condition, sex and maturity (gonad wt./body wt. ratio), 1966.

AK/2/6 Canadian H/S longline catches of salmon by skate group and vessel, 1967.

AK/2/7 Canadian H/S longline catches of salmon per 1000 hooks, 1961-66.

AK/2/8 Salmon longline catch and bait return data by skate group, 1966-67.

AK/2/9 Catches by skate group, Nov.-Dec., 1966.

AK/2/10 H/S longline catches by "G.B. Reed", 1967.

AK/2/11 Salmon longline catches by skate group, 1966.

AK/2/12 Age composition of sockeye in Canadian H/S catches, 1966.

AK/2/13 H/S sampling in 1966 - baits in stomachs of sampled fish (all spp.).

AK/2/14 Sockeye length frequencies by age groups within sets - "G.B. Reed", "Canadian No. 1" and "T.W. Sea Queen", 1966.

AK/3/1 High Seas tag recoveries (correspondence and reward data), 1970-79.

AK/3/2 US (FRI) ledger of recoveries of H/S tags, 1958-70: date and location tagged with date, location, gear and agent of recovery (also showing size, condition, sex and wounds).

AK/3/3 Ledger of Canadian tags "other than H/S", 1965-79.

AK/3/4 Tag ledger, Skeena system, 1958-62.

AK/3/5 Tag ledger, Canadian H/S, 1960-61.

AK/3/6 Tag ledger, Juan de Fuca Str. (including WDF and Oregon Fisheries Commission tags), 1958-62.

AK/3/7-9 Tag ledgers: (1)"other tags" 1958-62; (2)"other tags (foreign)", 1967-69; and (3)"other tags (Canadian)", 1962-65.

AK/3/10 Log of computer cards with H/S salmon data, 1967.

AK/3/11 A text regarding a salmon forecasting survey, Aug. 11, 1964.

AK/3/12 Computer listing of cards with data on 1963-65 recoveries of Cdn. tags, Sept., 1966.

AK/3/13 Print-outs of H/S tag recovery information, including final coded versions of data and procedural information, 1962.

AK/3/14 Coded records of recoveries from Japanese taggings, 1958-66.

AK/3/15 Coded records of recoveries from Canadian taggings, 1960-61.

AK/3/16 Canadian tagging records (identification nos. of scales sampled at release), 1960-62.

AK/3/17 Computer codes for INPFC tagging, 1963 (and earlier).

AK/3/18 Canadian tagging and release data (tag numbers used), 1960-67.

AK/3/19 Tagging records from "Fort Ross" for Area 2W, 1961.

AK/3/20 Canadian H/S tagging: tag nos. used and copies of shipboard data sheets, 1960-61.

AK/4/1 Seining effort of "Key West II", 1960.

AK/4/2 Tagging records of "Western Crusader", 1961.

AK/4/3 FRBC H/S salmon tagging (preliminary computer codes for tag returns), 1969.

AK/4/4 Field manuals for North Pacific tagging, 1961-62 and 1965.

AK/4/5 Japanese H/S tagging (coding and recovery data), 1970.

AK/4/6 Recoveries of pink salmon tagged in the Sea of Japan, 1958.

AK/4/7 Recoveries of Japanese H/S tags, 1958.

AK/4/8 Japanese H/S tagging and recovery data (with age at release), 1958-67.

AK/4/9 Japanese H/S tagging (INPFC Documents up to No. 518), 1952-1961.

AK/4/10 Japanese H/S tagging (INPFC Documents 554 and later), 1962 (and later).

AK/4/11 US H/S tagging data, Part I - releases, maturities, etc., 1960-68.

AK/4/12-13 FRI correspondence, etc., for 1967-70 and misc. data regarding US taggings, 1955-68.

AK/4/14 ADFG tagging and recovery data and correspondence regarding reports, 1970.

AK/4/15 Canadian H/S on-board ("original") tagging data from "Skarsdale", 1962.

AK/5/1-4 Copy 1 of computer listings of the on-board tagging data for "Midnight Sun", "Western Producer", "Western Crusader" and "Skarsdale" (cruises I-VII), 1962.

AK/5/5 H/S sampling data: (1)sockeye and pink, US, 1965-66; (2)sockeye, Japan, 1965; and (3)sockeye and chum, Canada, 1964.

AK/5/6-6/4 Canadian H/S sampling data: (1)from "Canadian No. 1", "A.P. Knight", "T.W. Sea Queen" and "G.B. Reed" (1966) and (2) from "T.W. Sea Queen" (1967).

AK/6/5 FRI Circular No. 150 re: tag recovery data, 1961.

AK/7/1-3 Canadian H/S sampling data from "Canadian No. 1", "G.B. Reed" and "Sea Queen" (cruises I-IV), 1965.

AK/7/4 FRI salmon catches from surveys using sunken and surface gillnets, 1958.

AK/7/5-6 Catch data and gillnetting summary, "A.P. Knight", 1962.

AK/7/7 H/S scale studies - annulus widths of sockeye, 1956-57.

AK/7/8 Miscellaneous tagging information, 1957-58.

AK/7/9 Salmon markings - "appendix to 1958 mark list".

AK/7/10 H/S tagging releases and recoveries, with scale impressions, 1958.

AK/7/11 FRI tagging operations - chart of tagging locations, 1956, and recoveries, 1957.

AK/7/12 Correspondence re: special skeletal studies, 1956.

AK/7/13 Pacific Oceanographic Group projects and proposals, 1954-55.

AK/7/14-15 US gillnet catches on H/S, 1955 and 1966.

AK/7/16-18 Pacific Ocean Fisheries Investigation - surface temperatures in 1957,1958 and 1959.

AK/7/19 Preliminary reports of Univ. of Wash. research cruise No. 142 ("Brown Bear"), 1956.

AK/7/20-22 Publications by R. LeBrasseur and F. Taylor on: (1) steelhead, (2)zooplankton in N.E. Pacific and (3)"Anotopterus pharao", 1956-59.

AK/7/23 US gillnet catches, 1957-59.

AK/7/24-25 1957-58 gillnet catches and summaries for "Fort Ross" and "Key West II".

AK/7/26 1956 gillnet catches for "Key West II" and "Challenger".

AK/7/27 Exploratory gillnet fishing project, "Fort Ross" and "Key West II", 1957.

AK/7/28-8/7:Sampling data collected by the Marine Salmon Section:

...7/28 Sockeye, 1956.

...7/29 Pinks, 1956.

...7/30 Pinks, 1957.

...8/1 Chum, 1957-58.

...8/2 Coho (with relative abundances), 1958.

...8/3 Coho, 1956.

...8/4 Coho, 1957.

...8/5 Chinook, 1956-57.

...8/6 Steelhead, 1956-58.

...8/7 Chum.

9K/8/8 Summary re: food of salmon, 1956.

AK/8/9 H/S distribution of salmon (emphasis on chum), 1958.

AK/8/10 Correspondence and references re: use of echo sounding for salmon, ca. 1958.

AK/8/11 Salmon abundances, 1958.

AK/8/12 Vertical distribution of H/S salmon, 1957-59.

AK/8/13 1960 gillnet surveys by "Fort Ross" and "Key West II".

AK/8/14 Salmon maturity study: letter from USFWS re: maturity codes that were used and a reference on maturity criteria.

AK/8/15 Salinity and temperature charts for N. Pacific, 1956.

AK/8/16 Composition of mature and immature salmon in H/S catches: (1)File 16(a) - sockeye, by sex (1956-59); and (2)File 16(b) - chum, by sex and age (1957-59).

AK/8/17 Maturity and morphometric data for chum (1956): (1)egg size to fork length relationship; (2)US data from Puget Sd., Seward Penin. (Alaska), Bristol Bay and the Yukon R. area, giving catch information, gonad weight/body wt. ratios, ages and several body measurements; and (3)H/S maturity indices by location, age and body weight.

AK/8/18 Maturity data (gonad wt./body weight ratios) for sockeye, 1956-57: (1)File 18(a) - H/S data; and (2)File 18(b) - data from several inshore and river locations from Oregon to Alaska.

AK/8/19 Ova measurements, mixed species.

AK/8/20 Length frequency data for sockeye, pink, chum and coho in the N.E. Pacific, from "Key West II" cruises, 1957-59.

AK/8/21 Chum weights, 1956.

AK/8/22 Coho lengths by mesh size, 1957.

AK/8/23 Sockeye weights, 1956.

AK/8/24 Coho length and weight data, 1955.

AK/8/25 Summary of coho growth records, 1955.

AK/8/26 Age composition of coho in the N.E. Pacific, 1956.

AK/8/27 Scale studies (general information), 1957.

AK/8/28 Coding information for salmon scale collections at PBS, 1957.

AK/8/29 Sockeye scales from IPSFC, 1958.

AK/8/30 Marine residence (ocean winters) of sockeye, 1956.

AK/8/31 Age composition of chum and sockeye in N.E. Pacific, 1959.

AK/8/32 Cdn. H/S scale sampling data for chinook, steelhead and coho, 1960.

AK/8/33-34 Purse seine and horizontal and vertical longline log for "Key West II", 1960.

AK/8/35 Purse seine log, "Western Crusader", 1961.

AK/8/36-9/8: Studies on young salmon in the sea, 1955:

...8/36 Data on stomach contents of chum.

...8/37 Size and growth of juvenile salmon, including "Study of Young Salmon in the Sea".

...8/38 Field data (by vessel).

...8/39 (1)File 39(a) - sex ratio of chum salmon during their migration through Chatham Sd.; and (2)File 39(b) - adult pink data, sex ratios of juvenile pinks and growth in weight of juvenile pinks.

...9/1 Sockeye - growth in length and weight and length/weight relationships.

...9/2 Coho - growth in weight.

...9/3 Chinook - growth in length and weight, length/weight relationships and relative abundances.

...9/4 Chum - growth in weight and length/weight relationships.

...9/5-6 Pinks - length/weight relationships and analysis of stomach contents.

...9/7 Coho - stomach contents data.

...9/8 "Food of young salmon" on northern B.C. coast (data analysis).

AK/9/9-11 Purse seine logs for "Fort Ross" and "Western Crusader", 1961; "Fort Ross" and "Key West II", 1960; and "Challenger" and "Key West II", 1956.

AK/9/12-13 Longline logs from "Key West II" and "Fort Ross", 1957-58.

AK/9/14 Longline catches from "Fort Ross", 1961.

AK/9/15-17 Canadian H/S scale sampling data for 1960: ages of sockeye and other species, pink scales (identification nos.) and chum ages.

AK/9/18 Oceanographic logs for 1956-58.

AK/9/19 Pacific Oceanographic Group (P.O.G.) marine salmon study - bathythermograph logs, 1962.

AK/9/20 P.O.G. - drift measurements for N. Pacific, 1956.

AK/9/21 P.O.G. - High Seas salinity data (titration sheets), 1956.

AK/9/22 Midwater trawl log, 1957.

AK/9/23 Natural history log (sightings of whales, birds, etc.) from Cdn. H/S tagging vessels, 1956-57 and 1960-62.

AK/9/24 Natural history log from C.C.G.S. "Stonetown" (Station "P" Weathership).

AK/9/25 Misc. fishing log for 1956-57.

AK/9/26 INPFC sampling data for 1955-59.

AK/9/27 Original field records from cruise 3 by the "Key West II" (Queen Charlotte Islands area) - catches, weather, field diaries, etc., 1958.

AK/9/28 Sampling data for sockeye and pinks, 1958.

AK/9/29 Sampling data from "Key West II", "Fort Ross" and "Western Crusader", 1960-61.

AK/9/30-10/13: Studies on young salmon in the sea (cont'd):

...9/30 Relative abundance of chum, 1955.

...9/31 Relative abundance of sockeye, 1955.

...9/32 Report on mid-water trawling for inshore populations of juvenile salmon in 1955.

...9/33 Oregon Fisheries Commission report: "Fin marks assigned for use of research agencies", 1958.

...9/34 B.C. salmon spawning report, 1957.

...9/35 Studies on food of marine sockeye, 1956.

...9/36 Sockeye stomach contents analysis, 1955.

...9/37 Chum sampling data, 1956.

...9/38 "Cape Blanco" charters, etc.

...9/39 Juvenile salmon distribution, migration and abundance.

...9/40 Sockeye sampling data from purse seining, 1956.

...9/41 Studies of young salmon in the sea, 1955.

...9/42 Food of juvenile salmon, 1956.

...9/43 Chinook stomach contents analysis, 1955.

...9/44 Field notes and diaries for beach and purse seining and plankton tows done in Areas 12-13, 1955.

...10/1 Studies on food of chum and pink, 1956.

...10/2 Sampling data from beach and purse seining of pinks, 1956.

...10/3 Notes on experimental tags, 1955.

...10/4 1956 field data from "Key West II".

...10/5 Coho sampling data from beach and purse seining, 1956.

...10/6 Inshore plankton data from "Cape Blanco" cruises, 1956.

...10/7 Reward correspondence re: juvenile tag recovery, 1956.

...10/8 Juvenile tagging records for Chatham Sd. and Dixon Entrance, 1956.

...10/9 "Offshore" (not H/S) adult tagging data (north and south operations), 1956.

...10/10 Fishing gear for juveniles, 1955.

...10/11 Marine Salmon Section investigations (general). Life phase information and proposed procedures, 1955.

...10/12 Marine Salmon cruise reports for northern operations, 1955.

...10/13 Data on growth in length of chum, 1955.

AK/10/14 Salmon longline log for "Fort Ross", 1961.

AK/10/14a H/S salmon tagging - total catch in 1962.

AK/10/15 Cruise report for "A.P. Knight" and P.O.G. salinity data, 1962.

AK/10/16-19 Floating longline summaries and master log sheets from "Western Crusader", "Western Producer", "Skardale" and "Midnight Sun", 1962.

AK/10/20-23 Tagging records, catch and efforts, and length frequencies from "Midnight Sun", "Western Crusader", "Western Producer" and "Skardale", 1962.

AK/10/24 Marine salmon length frequencies, ca. 1962.

AK/10/25 Alaskan tag recoveries: sockeye length frequencies by age and tagging period, 1962.

AK/11/1-4 Cdn. H/S tagging of sockeye, 1962: (1)nos. caught and tagged by length and age for all vessels, cruises I-VII; (2)recoveries by length and age; and (3)length and age sampling data.

AK/11/5-8 Floating longline summaries and master log sheets, 1963, for "G.B. Reed", "T.W. Zelly", "Western Crusader" and "Western Producer".

AK/11/9-11 Cdn. H/S tagging records, 1963, for "Western Crusader", "Western Producer" and "T.W. Zelly".

AK/11/12-15 Cdn. H/S tagging data with total catch and age and length frequencies, 1963, for "Western Producer", "T.W. Zelly", "Western Crusader" and "G.B. Reed".

AK/11/16-18 Cdn. H/S data on 1963 tagging of sockeye, chum and pinks, with age and length frequencies and nos. tagged - "Western Producer", "Western Crusader" and "T.W. Zelly".

AK/11/19 Salinity data from marine salmon investigations, 1963.

AK/11/20 Bathythermographic data, 1963.

AK/11/21 Data on maturity of sockeye and chum in the N. E. Pacific, April 4-June 3, 1963.

AK/11/22-24 H/S tagging by all vessels in 1963: total catch, total catch per 1000 hooks and nos. tagged.

AK/11/25 Age compositions of sockeye, chum and coho in N. Pacific, 1963.

AK/11/26 Cruise plans and programs, 1963.

AK/11/27 Misc. tagging and catch records, 1962-63.

AK/11/28 "G.B. Reed" cruise reports, 1963.

AK/11/29 FRBC tagging records: nos. of tags used by vessels and tagging dates and positions in N.E. Pacific, 1964.

AK/11/30 Data records of sockeye homing experiment in Rivers In., July, 1964.

AK/11/31 Vertical longline experiment, 1964.

AK/11/32-36 Data sheets (sampling and tagging) for "Western Crusader" cruises, 1964.

AK/11/37-40 Data sheets (sampling and tagging) for "G.B. Reed" cruises, 1964.

AK/12/1 US and Cdn. field instructions, 1965.

AK/12/2 Misc. catch summaries for 1965.

AK/12/3-7 Tagging and master logs (i.e. field "data sheets") for the 65-A-3 cruise ("G.B. Reed", 1965).

AK/12/8-11 Data sheets (deck logs, marine mammal observations, etc.) for "Canadian No. 1" cruises, 1965.

AK/12/12-15 Data sheets (misc. deck logs, etc.) for "T.W. Sea Queen", 1965.

AK/12/16 Sockeye sampling on Horsefly and Middle Rs., Aug.-Sept., 1965.

AK/12/17 Data sheets from longline and gillnet fishing off W. coast of Vancouver Is., Aug. 25 - Sept. 2, 1965.

AK/12/18 Data sheets from US vessels, 1965.

AK/12/19 FRI catch summaries and reports, 1966.

AK/12/20 Cdn. H/S field instructions, etc., 1966.

AK/12/21 H/S salmon reports and summaries, 1966.

AK/12/22 US H/S field program and cruise plans, 1966.

AK/12/23 US fishing efforts, 1966.

AK/12/24 Tag nos. of released fish by vessel and location, 1966.

AK/12/25-13/18: Floating longline summaries and master log sheets, filed by cruise, 1966:

...12/25-13/4 "G.B. Reed" (Cruises I-VII).

...13/5-12 "Canadian No. 1" (Cruises I-VIII).

...13/13-17 "T.W. Sea Queen" (Cruises I-V).

...13/18 "A.P. Knight" (Cruise I).

AK/13/19 Tag nos. used by Cdn. H/S operations in N.E. Pacific (by vessel, date and position), May 5 - June 3, 1967.

AK/13/20 H/S cruise plans and instructions, 1967.

AK/13/21 Misc. notes re: H/S longline studies, 1967.

AK/13/22-26 Floating longline summaries and master log sheets for "T.W. Sea Queen" cruises I-V (filed by cruise), 1967.

AK/14/1 Catch summaries for US vessels, 1967.

AK/14/2-3 H/S length frequencies and age data, 1967.

AK/14/4 H/S salmon investigations by Canada, US and Japan, 1968.

AK/14/5 Misc. field books and data (e.g. light meter readings, brown vs. blue longline gear and bait return data), 1965.

AK/14/6 Field books from "G.B. Reed" re: shipboard sampling and gillnet catches, 1967.

** AL **

FIGURES AND TABLES FROM PUBLICATIONS

YEARS: 1876-1971

SIZE: 1 box

DESCRIPTION

This record group has negatives of figures and tables from several Canadian papers in INPFC and FRBC publications. Most of the papers describe results from the High Seas salmon program of the 1950's and 60's. They can be generally described as studies to assess stocks and determine the distribution and movements of High Seas salmon. More specifically, the photo's show regional catches, CPUE's, ages, maturities, scale character types, migration routes, tagging and tag recovery locations, etc. One of the papers is Aro and Shepard's paper describing the location, size and timing of spawning populations of salmon in Canada (INPFC Bull. 23). Some negatives illustrate other topics, e.g. bathymetric maps of sockeye nursery lakes in the Skeena system; times of passage of sockeye and pink stocks through the Skeena fishery; and distribution of spawners in Hooknose Creek.

HISTORY/SOURCE: V. Aro

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Salmon

Life Stage

Juvenile / Smolt / Ocean fish / Mature

Statistical Area

All B.C. Areas

Location

High Seas / Station 'P' / Asia / Hokkaido Is. (Japan) / Kuril Islands (USSR) / Sakhalin Is. (USSR) / Sea of Okhotsk / Kamchatka (USSR) / Alaska / S.E. Alaska / Skeena system (4) / Lakelse L. (4-2) / Kitsumkalum (Kalum) L. (4-2) / Kitwanga L. (4-2) / Stephens L. system (4-2) / Swan L. (4-2) / Motase L. (4-3) / Bear L. (4-3) / Babine L. (4-4) / Hooknose Cr. (8) / Rivers In. (9) / Smith In. (10) / Johnstone Str. (12-13) / Nanaimo / Nanaimo system (17) / Fraser system (29) / Pitt R. (29-1) / Harrison R. (29-2) / Harrison system (29-2) / Cultus L. (29-3) / Lillooet system (29-4) / Seton system (29-4) / North Thompson system (29-5) / South Thompson system (29-5) / Chilko system (29-6) / Quesnel system (29-6) / Bowron system (29-6) / Stuart system (29-7) / Stellako system (29-7) / Columbia system

Aspect

Abundance / Age composition / Anadromous migrations / Annual variations / Bathymetric charts / Body size / Calibration / Catch composition / Catch/effort / Coastal fisheries / Diurnal variations / Escapement / Experimental fishing / Fish catch statistics / Gillnets / Growth / Horizontal distribution / International cooperation / International waters / Longlining / Mapping / Marine fish / Meristic counts / Mesh selectivity / Netting materials / Parasites / Photographs / Physical oceanography / Potential yield / Purse seining / Racial studies / Regional variations / Reproductive organs / Salinity / Scale reading (Ages) / Scale reading (Circuli measurements) / Seasonal variations / Sex ratio / Sexual maturity / Spawning grounds / Spawning migrations / Spawning seasons / Stock assessment / Stock identification / Stomach content / Tagging / Temporal distribution / Trolling / Vertical distribution / Watersheds / Zooplankton

REGISTER: RECORD GROUP AL

AL/1/1-29: Negatives and prints of figures and tables in the following publications:

...1/1,20 INPFC Bull. No. 25: "Salmon of the N. Pacific Ocean. Part VIII. Chum salmon in offshore waters." (data ca. 1955-66).

...1/2 INPFC Bull. No. 9, Paper no. 1: "Report on salmon stocks of the Pacific coast of Canada with reference to Articles III(1)(a) and IV of the International Convention for the High Seas Fisheries of the North Pacific Ocean".

...1/3 Progress Reports of the Pacific Coast Stations: contour maps of Bear, Motase, Lakelse, Lac-de-dah (Swan/Stephens), Kitsumkalum, Kitwanga and Babine Ls. - circa 1945-50.

...1/4 INPFC Ann. Rep. for 1960 - "Part A. Research by Canada".

...1/5 INPFC Bull. No. 22: "Salmon of the N. Pacific Ocean. Part VII. Pink salmon in offshore waters" (data 1955-62).

...1/6 INPFC Bull. No. 9, Paper no. 4: "Further consideration on the status of the sockeye stocks of the Fraser and Skeena River systems with respect to Articles III(1)(a) and IV of the International Convention for the High Seas Fisheries of the N. Pacific Ocean" (data 1908-59).

...1/7 INPFC Bull. No. 35: "Distribution and origin of chum salmon in offshore waters of the N. Pacific Ocean" (data 1952-71).

...1/8 Figures for publication, 1958-68, showing: (1)catches of sockeye, pink and coho in Area 4 vs. catches in Alaska area 104; (2)chinook and coho troll catches; (3)B.C. statistical areas; (4)catch distribution in the North Pacific; (5)streams in the Nanaimo area; and (6)ocean migration routes of Asian and N. American sockeye, pink and chum.

...1/9 FRBC MS Rep. No. 983: "Atlas of salmon catches made by longlines in the eastern N. Pacific Ocean, 1961 to 1967".

...1/10-12 INPFC Annual Reports for 1964, 1966 and 1967 - "Part A. Research by Canada". (data from previous years are often included).

...1/13 INPFC Bull. No. 40: "Distribution and origin of pink salmon in offshore waters of the N. Pacific Ocean" (data ca. 1908-71).

...1/14,25 INPFC Bull. No. 23: "Salmon of the N. Pacific Ocean - Part IV. Spawning populations of N. Pacific salmon. 5. Pacific salmon of Canada".

...1/15 INPFC Bull. No. 26: "Origin of chum salmon in offshore waters of the N. Pacific in 1956-58 as determined from scale studies".

...1/16-17 INPFC Annual Reports for 1961, 1965 and 1966 (file 1/16) and 1964-65 (incomplete, file 1/17) - "Part A. Research by Canada". (data from previous years are often included).

...1/18 Negatives for a report on US/Canada salmon.

...1/19 Negatives for a report on S.E. Alaska catch data.

...1/21 Negatives for an unidentified report.

...1/22 FRBC MS Rep. No. 1147 and No. 1148 re: tag recoveries of salmon tagged in the N. Pacific, 1956-69.

...1/23 "Canadian portion of report of Committee of Mutual Concern" (re: sockeye and pink catches in S.E. Alaska and B.C. and interception rates as estimated from tagging data).

...1/24 INPFC Bull. No. 29: Fig. 5 from Paper no. 1 and all figures from Paper nos. 3 and 4. They illustrate the status and trends in Canada's Pacific salmon stocks up to 1970.

...1/26 Miscellaneous subjects, showing distribution of pink and chum spawners in Hooknose Cr., international fishing boundaries on B.C. coast, Nanaimo R. system, central areas, etc.

...1/27 FRBC MS Rep. No. 984: "Times of passage of Skeena R. sockeye and pink salmon through the commercial fishing area".

...1/28 Department of Fisheries statistical areas.

...1/29 INPFC publications in the 1962-67 period, showing: (1)tagging data for pink, chum, sockeye and coho in eastern North Pacific; (2)High Seas oceanographic data; (3)species distribution in N. Pacific (including age data); (4)age composition of H/S sockeye catches; (5)graphs re: racial study of N. Pacific chum, using scale characters; (6)CPUE of H/S longlining; (7)comparative meristics data; and (8)catches and bait return rates vs. time of day.

** AM **

MERISTICS LABORATORY DATA COMPILATIONS

YEARS: 1962-68

SIZE: 12 boxes

DESCRIPTION

This record group consists of data compilations from the High Seas meristics investigations. The objective was to find and quantify differences in anatomical characters and parasites for stock identification purposes. Successful stock identification was meant to (1)supplement the INPFC tagging studies of national origin of High Seas salmon, and (2)in combination with future off-shore test fishing, allow forecasting of run sizes.

The data sheets (to a greater or lesser degree) have information on (1)age, sex, length and weight, (2)gonad volume or weight, (3)prey categories in the stomach, (4) endoparasite abundances and (5) counts of gillrakers, lateral line scales, vertebrae, fin rays and (occasionally) branchiostegal rays. Most salmon were from H/S catches but there are some inshore and freshwater adult samples. The x-rays used to count vertebrae, gillrakers and branchiostegal and fin rays are in record group AJ.

HISTORY/SOURCE: V. Aro, M. Shepard and W. Barner.

INDEX TERMS

Species

Sockeye / Pink / Coho / Chum / Salmon

Life Stage

Ocean fish / Mature

Statistical Area

4 (Skeena R.) / 4-4 (Babine) / 7 (Bella Bella) / 8 (Bella Coola) / 9 (Rivers In.) / 29 (Fraser R.) / 29-5 (Thompson R.) / 29-6 (Quesnel/Upper Fraser) / 29-7 (Nechako)

Location

High Seas / Babine system (4-4) / Port John (8) / Namu (8) / Bella Coola (8) / Fraser system (29) / Adams R. (29-5) / Horsefly R. (29-6) / Middle R. (29-7) / Takla L. (29-7)

Aspect

Age composition / Body size / Commercial fishing / Data collections / Endoparasites / Experimental fishing / Fin ray counts / Gillraker counts / Meristic counts / Reproductive organs / Sampling (Biological) / Scale counts / Sex ratio / Sexual maturity / Stomach content / Vertebrae counts / Weirs / X-ray analysis

REGISTER: RECORD GROUP AM

AM/1/1 Meristics data sheets for Area 29: Fraser R. sockeye and commercial catches of pinks.

AM/1/2-2/3 Meristics data from "Canadian No. 1" cruise in 1965, sets 6-52.

AM/2/4 Meristics data from "Sea Queen" cruises in 1965, sets 7-11.

AM/3/1 Meristics log books (with mostly pink data), volumes I, I(a), II, II(a) and III, 1965.

AM/3/2 Daily meristics lab sheets with data on sockeye from the Babine system (for Calaprice), 1967.

AM/3/3 Daily meristics lab sheets - "Sea Queen" and "Canadian No. 1" samples, Aug., 1966.

AM/3/4-6 Original on-board tagging and sampling records for Cdn. cruises by the "Midnight Sun", "Western Producer" and "Western Crusader", 1962.

AM/3/7 Computer card log of Cdn. H/S catches, 1965.

AM/3/8 Index to location of 1965 salmon tags that were handled by the Meristics Lab.

AM/3/9-10 Daily meristics lab sheets, June-August 1965 and October 1965-March 1966.

AM/3/11 X-ray readings - record sheets for US meristics/parasitology samples (includes problem clearing), 1965.

AM/4/1 X-ray readings - record sheets for Cdn. H/S salmon, catalogued by vessel and includes problem clearing, 1965.

AM/4/2 Meristics lab - daily log sheets for samples from High Seas, US , B.C., etc, (1965-66).

AM/4/3 Meristics sheets for Adams R. sockeye, 1966.

AM/4/4 Meristics sheets for US H/S and Area 29 shore samples, 1966.

AM/4/5 Data for Fraser R. shore samples (sockeye), 1965.

AM/4/6 H/S and non-H/S meristics data for 1965 consisting of X-ray readings and meristics counts (by vessel, set and species).

AM/4/7-8 Daily meristics lab sheets for samples from the "G. B. Reed" and "Sea Queen", June and July, 1966.

AM/4/9 FRI longline catches, 1963-66.

AM/4/10 FRBC H/S and Area 8 meristics data with stomach content cards, 1964.

AM/5/1 "Sea Queen" meristics log, sets 16-22, 1965.

AM/5/2-3 Meristics log sheets - samples from the "G. B. Reed" cruise in Nov./Dec., 1966.

AM/6/1 "Investigator No. 1" meristics log, 1965, mainly pink and coho data.

AM/6/2 "G. B. Reed" meristics log, sets 12-13, 1965.

AM/6/3 US meristics data, experimental sets 25-30, 1965.

AM/6/4 Miscellaneous H/S meristics data, 1965.

AM/6/5-7/1 "G. B. Reed" meristics sheets, sets 1-3 and 8-11 and January cruise, 1965.

AM/7/2 Meristics sheets for sockeye from the commercial catch in Area 9 and from spawning ground samples in Area 9, Adams R. and Babine system, 1965.

AM/7/3 Meristics sheets for Middle R. and Horsefly R. sockeye, August and September, 1965.

AM/7/4 Meristics sheets for pinks and sockeye in Area 4 (Skeena), 1965. Includes two returns of US tags to Babine fence.

AM/7/5 US meristics sheets, experimental sets 12-29, 1965.

AM/7/6 Area 7 and 8 (Port John and Namu) meristics data for pinks, 1965.

AM/7/7 "Sea Queen" meristics sheets, sets 23-43, 1965.

AM/7/8 US meristics data, experimental sets 20-24, 1965.

AM/8/1 Notes on meristics (circa. 1966).

AM/8/2-3 Data books and meristics sheets, readying for computer input, 1965.

AM/8/4 Data problems regarding meristics samples from the "Sea Queen", "G. B. Reed" and "Canadian No. 1", 1965.

AM/8/5 Problems with meristics data, all vessels, 1965.

AM/8/6 "G. B. Reed" data from January cruise, 1965.

AM/8/7 "Investigator No. 1" gonad data, 1965.

AM/8/8-9 Coding worksheets and records from meristics investigations, 1965.

AM/8/10-9/1 "G. B. Reed" meristics sheets, sets 14-30 and 37-44, 1965. Includes meristics data on tagged salmon held in tanks.

AM/9/2 "Sea Queen" meristics sheets, sets 12-15, 1965.

AM/9/3 "Canadian No. 1" meristics sheets, sets 2-5, 1965.

AM/9/4 Meristics data from Japanese H/S samples, 1965.

AM/9/5-11/19 Daily meristics lab sheets for samples collected by the "G. B. Reed", "Canadian No. 1" and "Sea Queen", May-August, 1966.

AM/11/20 Meristics sheets (dated Sept., 1966) for samples from "G.B. Reed" sets 95-132 and "Canadian No. 1" set B163.

AM/11/21 Japanese H/S meristics sheets and Bella Coola pink data, 1965.

AM/11/22 Canadian H/S meristics sheets for samples from 1964 and 1966.

AM/11/23 Meristics sheets for Takla L. samples, 1966.

AM/11/24 Miscellaneous gonad and sex frequency data from Canadian H/S samples, 1966.

AM/11/25-27 Daily meristics lab sheets, with notations regarding visceral adhesions, September-November, 1967.

AM/11/28 Miscellaneous H/S meristics data, including vertabrae counts, all species, 1966-67.

AM/12/1-2 US H/S meristics sheets, experimental sets 6-11, 31-46 and test sets 16-21, 1965.

AM/12/3 "Sea Queen" meristics sheets, sets 1-6, 1965.

** AN **

PINK AND CHUM TAGGING STUDIES

YEARS: 1943, 1945-50, 1953

SIZE: 5 boxes

DESCRIPTION

This Record Group has pink and chum tagging and tag recovery data. Most of the tagging was in the Johnstone Str. area and most recoveries were from waters inside of Vancouver Island. The data include elapsed times to recovery, run timings, stock compositions in fisheries and exploitation estimates. One objective was to determine the proportions of Puget Sd. salmon migrating through Johnstone and Juan de Fuca Straits.

HISTORY/SOURCE: V. Aro and J. Manzer

INDEX TERMS

Species

Pink / Chum

Life Stage

Mature

Statistical Area

12 (Alert Bay) / 13 (Quathiaski) / 18 (Cowichan) / 20 (Sooke) / 28-2 (Squamish) / 29 (Fraser R.)

Location

Johnstone Str. (12-13) / Sooke

Aspect

Body size / Catch composition / Coastal fisheries / Experimental fishing / Exploitation / Fish catch statistics / Horizontal distribution / Spawning migrations / Stock identification / Tagging / Temporal distribution / Trap fishing

REGISTER: RECORD GROUP AN

AN/1/1-4: Index cards with tag return data (e.g. tagging and recovery locations and dates):

...1/1 Area 12-13 pinks (1953).

...1/2 Pinks from several Areas, including 18, 28 and 29 (1953).

...1/3 Chum from several Areas (1953).

...1/4 Johnstone Str. chum (1950).

AN/1/5 Field books with pink and chum tagging records (locations, dates, etc.), 1945.

AN/1/6 Data and reports summarizing (1)catch compositions by gear and (2)pink taggings, 1945-50.

AN/1/7 Pink and chum tagging and recovery data showing elapsed times from Sooke traps and Johnstone Str., 1945.

AN/1/8 Field books with pink tagging data (tag numbers, dates and locations), 1943.

AN/2/1-5/1: Pink and chum tagging and tag recovery data:

...2/1-3 All or part from Johnstone Str., 1945.

...3/1-2 1953 (includes fish lengths and days out from time of tagging).

...4/1-5/1 Johnstone Str., 1945-50 (includes reward correspondence and tags).

AN/5/2 Chum tagging data, "K series", 1945.

** AO **

SKEENA SOCKEYE AND PINK STUDIES

YEARS: 1904-82

SIZE: 21 boxes

DESCRIPTION

This group from H. Smith is largely Babine sockeye data. Most of the fry, smolt and adult records from the Babine fence up to the late 1960's are in AO. There is data from the 4-Mile Cr. sockeye spawning study (1964-65) by Hanson and Smith, in which they examined the age composition of spawning pairs. Other files have field books from a study to evaluate the use of a photoelectric smolt counter at the Babine fence. There are aerial and ground photos of many Skeena spawning streams and areas. Part of these aerial photos are low level pictures of spawners. This was an attempt to evaluate aerial photography as an enumeration method. Another group of files have the data for the FRB MS Rep. No. 882 by Smith et. al. which describes, in catalogue fashion, the spawning grounds in the Skeena system and has tabulated salmon escapements to these grounds. Many files have weather data, water temperatures, stream levels and discharges, and maps of spawning grounds, especially for the Babine system. Data from Skeena salmon stocks other than Babine center around sockeye (Skeena runs in general and some Lakelse fence data) and pinks (fry and adult studies). Some miscellaneous files include fossil diatom data from sediments in Babine L., zooplankton/underyearling sockeye relationships in Babine L., catches in Areas 9-10, High Seas tagging data, coho data from the Stikine R. and adult salmon counts at the Meziadin R. fishway.

Table of Contents (sub-grouping of files by topic):

1. Photos and maps: 1/1,3,4,10,11; 2/1-14; 5/17,18; 5/21-6/55; 8/2,3,8; 14/3; 15/1

2. Aerial photos and surveys of spawners: 1/5-9; 5/14-16,19; 8/1; 15/1

3. Babine juvenile sockeye: 3/1-4/5; 4/15; 10/1; 11/7,11,20,21; 12/2-4,6,9,11,13; 13/8,13,19; 14/2,8,15,16,19-24; 18/3,6-8; 20/1

4. Babine adult salmon: 4/6-5/11; 6/56-7/1; 7/3,4; 9/1; 11/4,8,15-17,21; 12/15-19,21,26,28; 13/3-6,12,20,21; 14/1,4,5,7,9,10,12-14,24,26-32; 16/1-2; 17/1-12,15-18; 18/1,2,4,5; 19/1,2; 20/2-10; 21/1-7

5. Skeena system sockeye and pink data (largely excluding Babine): 3/5; 5/13; 7/2; 8/6,11; 11/9,21; 12/1,27; 13/11,12,15; 14/6; 16/1,2; 17/15-17; 21/1-7

6. 4-Mile Cr. spawning study: 1/12,13; 8/9; 9/2; 11/12-14,18,19; 12/20,24; 14/17,18,33,34

7. Environmental measurements in Skeena area: 1/2; 2/15; 5/12; 6/56-7/1; 7/3,4; 8/10,12-16; 11/1-3,6; 12/7; 13/1,2,14; 14/25; 17/14; 20/9

8. Photoelectric smolt counter: 8/5; 12/9-14; 13/9,10,18; 14/11

9. Miscellaneous: 5/20; 8/3,4,7; 11/1,3,5; 12/5,6,8,22,23,25; 13/3,7,14,16,17; 17/13; 20/11

HISTORY/SOURCE: H. Smith

INDEX TERMS

Species

Chinook / Chum / Coho / Sockeye / Steelhead / Pink / Plankton

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature

Statistical Area

Alsek-Taku-Stikine / 3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 9 (Rivers In.) / 10 (Smith In.) / 11 (Seymour In.)

Location

High Seas / Meziadin system (3) / Nass system (3) / Skeena R. (4) / Skeena system (4) / Chatham Sd. (4-1) / Khyex R. (4-1) / Exchamsiks R. (4-2) / Exstew R. (4-2) / Gitnadoix R. (4-2) / Kasiks R. (4-2) / Kispiox R. (4-2) / Kitwanga R. (4-2) / Kitwanga system (4-2) / Lakelse L. (4-2) / Lakelse R. (4-2) / Lakelse system (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Shames Slough (4-2) / Zymagotitz R. (4-2) / Bulkley R. (4-3) / Morice L. (4-3) / Morice R. (4-3) / Nanika R. (4-3) / Telkwa R. (4-3) / Babine R. (Lower) (4-4) / Babine R. (Upper) (4-4) / Babine L. (4-4) / Babine system (4-4) / 5-Mile Cr. (4-4) / Fort Babine (4-4) / 4-Mile Cr. (4-4) / Fulton R. (4-4) / Gullwing (6-Mile) Cr. (4-4) / Halifax Narrows (4-4) / Morrison R. (4-4) / Nilkitkwa L. (4-4) / 9-Mile Cr. (4-4) / Pierre Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / Shass (Grizzly) Cr. (4-4) / Sockeye Cr. (4-4) / Tachek Cr. (4-4) / Twain (Twin) Cr. (4-4) / Rivers In. (9) / Smith In. (10) / Seymour In. (11) / Duncan Dam (Columbia system) / Hazelton / Prince Rupert / Smithers / Stikine R. (Alaska and Alsek-Taku-Stikine) / Terrace

Aspect

Abundance / Aerial photography / Aerial surveys / Age composition / Bathythermographic data / Bibliographies / Biomass / Body size / Body weight / Calibration / Catalogues / Catch composition / Catch/effort / Coastal fisheries / Computer programs / Condition factor / Endoparasites / Escapement / Experimental culture / Experimental fishing / Exploitation / Fecundity / Fish catch statistics / Fish counters / Fluvial morphology / Fossil diatoms / Freshwater fish / Gravel / Growth / Horizontal distribution / Inland fisheries / Jacks / Limnology (Chemical) / Limnology (Physical) / Mapping / Marine fish / Marking / Methodology / Migrations / Mortality / Oceanographic data / Orientation behaviour / Otolith reading / Photographs / Population number /

Redd sampling / Regional variations / Reproductive behaviour / Reproductive organs / River discharge / Scale reading (Ages) / Scale reading (Circuli measurements) / Selective breeding / Sex ratio / Size distribution / Spawning grounds / Statistical analysis / Stock identification / Stomach content / Survival / Tagging / Temporal distribution / Trap fishing / Water depth / Water temperature / Weather conditions / Weirs / Zooplankton

REGISTER: RECORD GROUP AO

AO/1/1 Mapping of the Kitwanga system.

AO/1/2 Thermograph charts from Babine fence, 1964-65.

AO/1/3-9: Photographs of spawning streams in the Skeena system:

...1/3-4 Ground level photos of streams and their gravel.

...1/5 Upper and lower Babine R.

...1/6 Kispiox R.

...1/7 Kitwanga R.

...1/8 Kispiox R., from Mile 13 to Sweetin Cr.

...1/9 Miscellaneous streams.

AO/1/10 Stadia survey (detailed mapping) of lower Babine R.

AO/1/11 Book with a record of aerial photos of the Skeena system, 1961-67.

AO/2/1-14: Cartographic air photos of Skeena system spawning streams:

...2/1 Skeena R., 1953.

...2/2 Kispiox R., 1950.

...2/3 Lakelse system, 1947.

...2/4 Telkwa R., 1949.

...2/5 Bulkley R., 1953.

...2/6 Kitwanga R., 1950.

...2/7 Nanika R., 1954.

...2/8 Zymagotitz R., 1947.

...2/9 Khyex R., 1947.

...2/10 Gitnadoix R., 1947.

...2/11 Exstew R., 1947.

...2/12 Exchamsiks R., 1947.

...2/13 Morice L. and R., 1949.

...2/14 Kasiks R.

AO/2/15 Weather data: (1)Average temperatures at Prince Rupert, Terrace, New Hazelton, Smithers and Fort Babine (1953-1963) and (2)air temperatures at various Fisheries sites (1970-73).

AO/3/1 Summary of Babine smolt data: (1)Lengths, weights, circuli counts and the percent parasitized with Eubothrium - by early and late runs, 1950-65; (2)circuli counts, 1961-67; and (3)smolt numbers by size group, 1966-68.

AO/3/2 Fort Babine smolt trap, 1953: (1)Record of daily smolt samples by age; (2)daily length and weight frequencies of yearling smolts (by sex), with SE's of mean lengths and weights; (3)mean lengths and weights of 2 yr. old smolts, by sex; (4)daily nos. of parasitized smolts, with type of parasite; and (5)lengths and weights of yearling females that were doubly parasitized.

AO/3/3 Fort Babine and Nilkitkwa smolt traps, 1955 (with earlier data also): (1)Lengths and weights of smolts, total and by sex, 1950-55; (2)lengths and weights of parasitized and non-parasitized yearlings, 1952-55; and (3)length and weight frequencies by sex for the total sample and for "doubly" parasitized smolts.

AO/3/4 Babine fence smolt trapping, 1951: (1)Photos of smolt scales, showing vigorous growth, with text and data; (2)gonad photos; (3)lengths and weights for various sampling locations; (4)daily length and weight frequencies of yearlings by sex; (5)methods of smolt enumeration at fence; (6)record of daily sampling; (7)comparison of lengths and weights of yearlings and 2 yr. olds; and (8)mean lengths and weights of 2 yr. olds.

AO/3/5 (1)Nilkitkwa smolt trap, 1952 (with some earlier data): (a)daily no. of samples; (b)methods of examination; (c)mean lengths for 2 yr. olds; (d)weekly weight frequencies by sex; (e)summary of lengths and weights, 1951-53; (f)comparison of 1951 and 1952 lengths and weights; (g)no. of parasite samples with type of parasite; (h)daily length frequencies of yearlings, by sex; and (i)summary of length frequencies for nematode, cestode and "doubly" infected yearlings. (2)Weight frequencies of age 1 and 2 smolts in Lakelse R., 1952.

AO/3/6 Babine fence smolt trapping, 1950: (1)"Babine R. Smolts" - lengths, sex and age distributions and assessment of the degree and influence of parasitization; (2)field books with lengths, weights, sex and parasite incidence; (3)daily weight frequencies of yearlings by sex; (4)weekly lengths and weight frequencies of yearlings by sex; and (5)mean lengths and weights by sex.

A0/3/7 Fort Babine smolt trap, 1954: Lengths, weights, sexes, stomach contents and type of parasites.

A0/3/8 Fort Babine smolt trap, 1954: (1)Non-parasitized smolts - weekly length and weight frequencies and statistical summaries of lengths; and (2)"doubly" parasitized smolts - weekly length and weight frequencies.

A0/3/9 Fort Babine smolt trap, 1953: Lengths, weights, sexes and composition and incidence of parasites.

A0/3/10 Babine fence smolt trapping, 1952: Length, weight, sex, age and scale data and data on stomach contents and parasites.

A0/3/11-13 Fort Babine and Nilkitkwa smolt traps, 1955: (1)Lengths, weights, sex, stomach contents and parasite data; (2)length and weight frequencies of Fort Babine vs. Nilkitkwa samples; (3)length and weight frequencies of "doubly" parasitized smolts from Nilkitkwa; and (4)no. of Nilkitkwa samples and size of sub-samples.

A0/3/14 Nilkitkwa smolt trap, 1956: (1)Length frequencies of "doubly" parasitized smolts; (2)length frequencies of non-parasitized smolts, by sex; (3)sampling records; and (4)weight frequencies by sex, with means, SD's and SE's.

A0/3/15 Fort Babine smolt trap, 1956: (1)nos. of parasitized, "doubly" parasitized and non-parasitized smolts at Fort Babine vs. at Nilkitkwa; (2)length and weight frequencies for all smolts (with SD's) and for non-parasitized, cestode parasitized, nematode parasitized and "doubly" parasitized smolts.

A0/3/16 Fort Babine smolt trap, 1956: Length, weight, sex, stomach content and parasite data.

A0/3/17 Nilkitkwa smolt trap, 1956: Length, weight, sex, stomach content and parasite data.

A0/3/18 Fort Babine smolt trap, 1957: Length, weight, sex, stomach content and parasite data.

A0/3/19-20 Nilkitkwa smolt trap, 1957: (1)Lengths, weights and ages; and(2)length and weight frequencies and statistical summaries.

A0/3/21 Fort Babine smolt trap, 1957 (with summaries of earlier data): (1)Daily lengths and weights, by age and site, for all smolts and for males and females separately; (2)mean lengths and weights of parasitized vs. non-parasitized yearlings, 1950-56; (3)length and weight frequencies and statistical summaries for all smolts, 1957; (4)catches by date and location, 1957; and (5)comparative summary of length and weight frequencies of Nilkitkwa and Fort Babine samples, 1953-57.

A0/3/22 Nilkitkwa smolt trap, 1958 (with a 1952-59 summary): (1)percent mark recovery, by day, 1952-59; (2)daily trap catches; and (3)annual output estimates.

A0/3/23 Babine smolt trapping, 1959: (1)Daily length and weight frequencies of smolts from Fort Babine and Nilkitkwa traps; (2)scale measurements from SSA data sheets and smolt lengths by sampling site; (3)length frequencies of upper and lower Babine R. samples; and (4)lengths, weights and mean weights of lower Babine R. and lower Nilkitkwa L. smolts.

A0/3/24 Smolt sampling at Babine fence and the Nilkitkwa and Fort Babine traps, 1958: (1)Length frequencies and weights by length class for each sampling location; (2)daily mean lengths and weights for each sampling location; (3)daily mean weights, with ranges, for Nilkitkwa trap and Babine fence; (4)ages and circuli counts of Babine fence and Nilkitkwa trap samples; (5)mean lengths for all samples; (6)length frequencies and mean weights of samples at various times and locations; (7)scale radius frequencies, showing plus growth in Babine fence smolts; and (8)weekly length frequencies at each sampling site.

A0/3/25-29 Length frequencies, weights and daily mean weights of smolts from: Lower Babine R., 1960; upper and lower Nilkitkwa L. traps, 1961; upper Nilkitkwa L. trap and Babine fence (fyke net hung from fence), 1962; and lower Nilkitkwa L. trap, 1963-64.

A0/3/30 Lower Nilkitkwa L. trap, 1965: Daily records of sample nos., length frequencies and mean weights of smolts.

A0/4/1 Lower Nilkitkwa L. smolt trap and Babine fence, 1966: (1)Daily records of length frequencies and average weights; and (2)weights of pond samples.

A0/4/2 Lower Nilkitkwa L. smolt trap, 1967: Daily length frequencies with mean lengths and weights.

A0/4/3 Smolts from lower Nilkitkwa L. trap and upper Babine R., 1968: (1)Daily sampling data - lengths, weights, parasitized/non-parasitized ratios, circuli counts and annulus widths; (2)daily records of plus growth and nos. of circuli in parasitzed vs. non-parasitized smolts; and (3)length frequencies, mean lengths and weights and total no. of circuli per scale in smolts from upper and lower Babine River.

A0/4/4-5 Daily observations of the smolt run and records of recovered tags: Lower Nilkitkwa L. trap (1961-62) and Babine fence (1962).

A0/4/6-13: Adult salmon data from Babine R. fence:

...4/6 Jack sockeye counts, 1950-61.

...4/7 Dead on fence counts for coho, chinook, pinks and sockeye, 1953.

...4/8 Sockeye length frequencies, sex ratios and proportion of jacks, 1946-1963.

...4/9 Sockeye length frequencies, 1958-60.

...4/10 Sockeye lengths and sex frequencies, 1962.

...4/11-13 Sockeye sampling data, 1963-71.

A0/4/14 T-tests of differences in lengths between samples of Babine sockeye of the same stock, 1963-64.

A0/4/15 Babine sockeye: (1)Jack counts, 1947-57; (2)sex ratios and average lengths of adults at Babine fence; (3)river tags recovered in Indian fishery on Babine L., showing sex of recovered fish, 1947; (4)counts, fecundities, sex ratios and nos. of jacks at Babine fence and nos. of females caught in Indian fishery on Babine L., 1946-57; (5)estimated size of smolt run and mark recovery data, 1951; (6)estimated size of smolt run, mark recovery data, time-out data (Fort Babine to Nilkitkwa using thread tagging) and adjustment of mark recovery percentages, 1952.

A0/4/16-5/11 Seventeen annual record books with daily fence counts of adult sockeye, pinks, coho, chinook and chum. Also included are jack counts, dead on fence records, tag recovery data, spawned/unspawned records and sampling data, 1954-1971 (except 1968).

A0/5/12 Water levels, water temperatures and weather data from Babine fence, 1952.

A0/5/13 Tables of hypural lengths of pinks from various Skeena system stocks, with charts of sampling locations and zones, 1956-64.

A0/5/14-6/53: Photos taken in the Skeena system:

...5/14-15 Low level aerial photos of Twin and Pierre Crs., 1958.

...5/16 Air photo index.

...5/17 Aerial photos of a possible slide area on the Babine R., 1958.

...5/18 Shames Slough, 1962.

...5/19 Sockeye spawning in lower Babine R., 1960.

...5/20 Sockeye spawning on a grid layout in the lower Babine R., 1962.

...5/21-6/53 Cartographic aerial photo series - 100 files dated circa 1938 to 1956.

A0/6/54 Index to air photos of Seymour In., 1959.

A0/6/55 Index to topographical maps and forest survey maps.

A0/6/56-7/4: Field record books from the Babine fence, with weather records, diaries, tagging and tag recovery data and sampling data:

...6/56-59 Adult sockeye tagging, 1946.

...7/1 Adult counts, 1952-57.

...7/3-4 Adult sampling data, 1947 and 1949-52.

A0/7/2 Lakelse R. fence: Field book with adult records, 1953.

A0/8/1-9: Photographs of:

...8/1 Spawning salmon (taken from an aircraft), for evaluation as an enumeration method.

...8/2 Babine L. and (?).

...8/3 Smolts (?).

...8/4 Photos of wave action around fence structure (with installation of deflector).

...8/5 Electronic smolt counter at Babine fence, 1963.

...8/6 Trap system for netting pink fry at various depths in the Kispiox R., 1958-61.

...8/7 Hydraulic redd sampler, 1963.

...8/8 Aerial photos of spawning grounds and ground photos of Skeena system streams (eg. Gitnadoix R.) and fence locations.

...8/9 4-Mile Cr. sockeye spawning study, 1965.

A0/8/10 Water level and temperature readings for Babine, 1944-1956.

A0/8/11 Lakelse R. pink escapement - record book with spawner surveys, live and dead counts, tag recoveries and survey reports, 1955.

A0/8/12 Air and water temperatures from Scully Cr., 1951-54.

A0/8/13 (1)Climate of British Columbia reports, 1954-63; and (2)Canadian Weather Reviews, 1963-64.

A0/8/14 Canadian Weather Reviews, 1965-67.

A0/8/15-16 Meteorology reports: Babine, 1944-50, and Fort Babine, 1951-67.

A0/9/1 Thirteen annual record books with escapement survey data and tag recovery data from Babine streams. They also include sampling data. 1958 and 1962-71.

A0/9/2 Dead recovery records for the 4-Mile Cr. sockeye spawning study, 1964-65.

A0/10/1 (Entire box) Babine smolt enumeration: Twenty-four record books with daily marking and tagging data and recovery data, 1951-62.

AO/11/1 Chemical and fossil diatom analyses of sediment in Babine L., 1972.

AO/11/2 Precipitation and air temperature log for Halifax Narrows camp, Babine L., 1973.

AO/11/3 Summary of Skeena R. discharges, 1946-69, and data on the relationship of underyearling sockeye biomass to zooplankton standing stock.

AO/11/4 Tables for 1973 publication on Babine sockeye production (data on fence counts and Indian catches), 1949-72.

AO/11/5 Bibliography of papers on Skeena salmon.

AO/11/6 Weather and water temperature tables for Babine, 1963-70.

AO/11/7-8 (1)Egg to smolt survival graphs for Babine stocks (Fulton, Pinkut, Morrison, upper and lower Babine R. and "early" streams); and (2)age compositions of Babine sockeye.

AO/11/9 Weekly exploitation rates for Skeena (sockeye?) run, 1967-72.

AO/11/10 [No file]

AO/11/11 Data summary of Babine smolt runs, 1951-72.

AO/11/12-14 4-Mile Cr. sockeye spawning study, 1965: Female mating data, male positions and dead recoveries.

AO/11/15-17 Adult sockeye sampling data from Babine, 1969-71: (1)Hypural lengths, ages and scale measurements, by sex, from spawner samples; (2)lengths and ages of jacks; (3)female sampling data from Fulton R. and Fulton channel; and (4)age compositions of spawners.

AO/11/18-19 4-Mile Cr. study, 1964-65: Tag recovery data and lengths, ages, conditions and sex of spawners.

AO/11/20 Babine R. sockeye fry: (1)Fence catches by date and time, 1962; (2)lengths and weights of fry migrating upstream, 1966; (3)orientation data and statistical tests of length and weight variances; (4)length frequencies and standard lengths by trap location; and (5)catches vs. water levels and temperatures.

AO/11/21 (1)Age composition of Babine sockeye, 1962-63; (2)maps of Skeena salmon streams; (3)Skeena sockeye escapements by stream and year, 1944-63; (4)timing and size of pink escapements to Skeena system, 1950-62; (5)percent pink fry trapped per night-hr. at Kispiox, Kitwanga and Lakelse Rs., 1956-61; (6)Babine fin clipping records, 1962; (7)Babine fence counts and mean length data, 1961-63; (8)hypural lengths of Skeena pinks, 1955-61; (9)graphs of Babine sockeye smolt outputs, 1958-63; (10)Babine sockeye escapements, 1917-63; (11)smolt abundance estimates for early and late runs at Babine, with mean weights, 1951-63; (12)"The Skeena R. adult enumeration program and the 1962 salmon escapements"; (13)diagram of counting stations on the Babine fence for 1963 smolt migration study; (14)Skeena pink escapements and resulting returns; (15)egg to fry survivals of pinks vs. relative sizes of parent escapements for Kispiox, Kitwanga and Lakelse, 1955-62; (16)"Index of returns", 1930-60; (17)potential egg depositions, 1961-62; (18)apparent ocean survival of Babine sockeye; (19)Skeena sockeye escapements and resulting returns, 1941-62; (20)Babine sockeye survival, 1945-62; (21)daily smolt outputs from Babine, 1951-61; (22)redd digging procedures at Shames Slough, 1961; (23)potential egg depositions and smolts produced, 1949-1960's; and (24) length frequencies of Babine sockeye - males, females and jacks, 1964.

AO/12/1 "Outside tagging" data (in Chatham Sd. area) and dates and locations of Skeena and Babine fence recoveries, 1956-57.

AO/12/2 Babine R. - redd sampling data (% live alevins) and fry trapping, March, 1962.

AO/12/3 Recoveries of tagged smolts at lower Nilkitkwa L. trap, 1962.

AO/12/4 Record book for Nilkitkwa L. smolt tagging (abundance estimation of Babine smolts), 1961.

AO/12/5 Field book re: Duncan dam project, 1965.

AO/12/6 Microscope slides of Eubothrium adults and eggs from Babine smolts, 1969.

AO/12/7 Bathythermograph slides from Babine L., 1972.

AO/12/8 Computer cards for a length analysis program and index cards for places in the Skeena system (no data).

AO/12/9-14: Photoelectric smolt counter evaluation:

...12/9 Smolt counts at Babine R. fence, 1963.

...12/10 Status reports and memos, 1964.

...12/11 Daily figures, physical measurements, trapping conditions, counter specifications and notes on avoidance by smolts, 1964.

...12/12 (1)Daily notes; (2)calibration data; (3)vertical, horizontal and fence-wide distribution of smolts; and (4)light experiment data, 1965.

...12/13 Comparisons of (1)fish counter output and mark recovery estimates and (2)output from upper and lower counters, 1964-65.

...12/14 Daily counts, calibration data and horizontal and vertical distance measurements, 1966.

AO/12/15-21: Adult Babine sockeye:

...12/15 Duncan multiple range test of hypural length differences between stocks, by age and sex, 1962-66.

...12/16 Duncan multiple range test of hypural lengths, 1962-68.

...12/17 Age compositions, 1962-68.

...12/18 Age 1.2 females - average circuli spacing in the first ocean zone of scales (by sub-stock), 1962-68.

...12/19 Age 1.2 females and males - average circuli spacing in the first ocean zone of scales (by sub-stock) for combined years, 1962-68.

...12/20 4-Mile Cr. study - length frequencies and mortalities of spawners, 1964-65.

...12/21 Annulus widths and circuli counts, Babine R., 1966.

A0/12/22 Salmon enhancement research needs.

A0/12/23 Salmon Enhancement Task Force: Correspondence regarding objectives of the program, etc., 1973.

A0/12/24 4-Mile Cr. study: Identification of fry from crossing experiments, 1964-65.

A0/12/25 Sockeye catches in Smith and Rivers In. fisheries, 1962.

A0/12/26 Sex ratios, age compositions and tag recovery data for Fulton R. sockeye spawners, 1964.

A0/12/27 Data from hydraulic sampling of pink redds in Lakelse R., 1965-66.

A0/12/28 Age composition of sockeye on Babine spawning grounds, 1962-71.

A0/13/1 Babine L. climatological register, 1972.

A0/13/2 Babine L. water chemistry data, 1973.

A0/13/3 Age/size/growth study - data for the combined Babine sockeye stocks and a program for analysis, 1962-68.

A0/13/4-5 Ages and lengths of sockeye on Babine spawning grounds, 1962-64.

A0/13/6 Age/size/growth study - scale data from stocks of Babine sockeye spawners (?), 1962-67.

A0/13/7 Zooplankton data from Babine L., 1973.

A0/13/8 Estimates of fry and smolt production from Babine spawning channels, 1965-70.

A0/13/9-10 Calibration data for electronic smolt counter, 1965 and 1968-69.

A0/13/11 Inventory of the samples taken of Lakelse sockeye smolts, 1961-64.

A0/13/12 Fecundity/length relationships for Lakelse and Babine pinks, 1960-66.

A0/13/13 Estimates of Babine smolt abundances with a record of daily mark recoveries, 1961-72.

A0/13/14 High Seas program, 1962: Temperature and salinity data and charts showing locations of tagging by Canadian vessels.

A0/13/15 MS draft on Skeena pinks: Status of fishery and abundance and distribution of escapements.

A0/13/16 Misc. photos of tables of fry data.

A0/13/17 Photo of Pinkut Cr. fry fence.

A0/13/18 Photo of drawing of electronic smolt counter.

A0/13/19 Photo of fry trapping at a fence.

A0/13/20-14/1: Twenty-one annual record books with adult salmon data from Babine fence:

...13/20 Sampling data, 1958-61 and 1964.

...13/21 Counts, 1953, 1955-56 and 1958-63.

...14/1 Counts, 1960, 1963 and 1965-69.

A0/14/2 Records of movements of sockeye fry in Babine R., by time of day. Includes orientation and behaviour data, water temperatures and river levels, 1962-66.

A0/14/3 Aerial photos of some Skeena/Babine areas and maps and graphs for a MS on Babine studies.

A0/14/4 Daily counts of large and jack sockeye at Babine fence, 1972-73.

A0/14/5 Babine map showing live and dead spawner counts.

A0/14/6 Skeena pink escapements: Data for a MS report describing the stocks.

A0/14/7 Summary of adult sockeye counts at Babine fence, 1946-63, with counts of other salmon spp. and fin clip recovery data.

A0/14/8 Babine egg to smolt survivals, 1949-60.

A0/14/9 Records of tagging adult sockeye at Babine fence and subsequent recovery data, 1962.

A0/14/10 Sex ratios and jack counts of sockeye at Babine fence and on Babine spawning grounds, 1962-63.

A0/14/11 Proposed structure to guide smolts through electronic counter at Babine fence.

A0/14/12 Records of tagging of adult sockeye at Babine fence, and recovery data by spawning stream, 1963.

A0/14/13 Influence of commercial fishing strike on returns from 1958-59 escapements to Babine.

A0/14/14 Circuli counts, annuli measurements and fecundity vs. length data for sockeye from several Babine spawning grounds.

A0/14/15-16 Scale data and lengths and weights of Babine smolts, 1970 and 1973.

A0/14/17-18 4-Mile Cr. sockeye spawning study: Lengths, weights and ages of spawners and mate selection data (effect of size).

A0/14/19 Evaluation tests of tag and recovery procedures to enumerate Babine smolts, 1962.

A0/14/20 Catches of pink and sockeye fry in traps at Babine fence (by location on fence), with incidental catches of smolts and juveniles of other salmon spp., 1958-68.

A0/14/21 Outline of procedures for obtaining daily smolt estimates at Babine, 1962-63.

A0/14/22 Weighting factors for estimating abundance of Babine smolts.

A0/14/23 Data on the effect of preservation in 10% formalin on lengths and weights of Babine smolts, 1968-69.

A0/14/24 (1)Escapements to Pinkut Cr. and the Pinkut spawning channel of large and jack sockeye and resulting fry productions, 1968-73; (2)escapements to Fulton R. and Fulton spawning channel of large and jack sockeye and resulting fry production, 1966-73; and (3)comparison of fry abundance estimates with subsequent smolt outputs from Babine.

A0/14/25 Babine system, 1972-73: (1)Water temperatures for several streams; (2)air temperatures; and (3)a report on low flows in Babine R.

A0/14/26-32: Relative abundances of sockeye spawners in various Babine streams, expressed as a percent of the total Babine fence count and with notes on optimum escapements:

...14/26 1962-63.

...14/27-31 1967-71 (by year).

...14/32 Summary, 1962-71.

A0/14/33-34: 4-Mile Cr. sockeye spawning study, 1964:

...14/33 Ages, lengths and conditions of spawners and tag recoveries.

...14/34 Pen experiments - observations of selection, aggression, redd preparation, etc.

A0/15/1 (Entire box) Aerial photos of (1)Babine spawning grounds (enumeration of spawners), (2)the Babine R. slide area and (3)an index to film rolls, 1959-60.

A0/16/1-2 Multilith masters for FRBC Man. Rep. (Biol.) No. 882, "Catalogue of salmon spawning grounds and tabulation of escapements in the Skeena River and Department of Fisheries statistical area 4": Section 4 (Babine system) and blank forms.

A0/17/1 Potential egg depositions by the North Arm and "Main L." segments of Babine sockeye escapements, 1962-71.

A0/17/2 Age composition of sockeye (excluding jacks) on the principal spawning grounds of the Babine L. system - percent composition and, by weighting with abundance, numbers of each age, 1962-71. Includes an age comparison of the Babine run with the overall Skeena run for 1965. Also includes escapement estimates for all streams.

A0/17/3-12 Hypural length frequencies and ages (from otolith readings) of Babine sockeye spawners, by stream and sex, 1962-71 (filed by year).

A0/17/13 Hypural lengths and age and sex compositions of coho from Stikine R., 1965.

A0/17/14 (1)Area measurements of useful spawning grounds in upper and lower Babine R.; (2)observations on spring breakups in Babine L.; (3)levels of Babine R. above and below the fence; (4)bottom profile across Nilkitkwa L. near the lower trap site at the outlet (1953 soundings); and (5)water temperatures at the Babine fence, 1958-61.

A0/17/15-17 Skeena R. system: Data, graphs and rough drafts on enumerations of escapements of sockeye, chinook, coho and pinks. Includes spawning reports, Indian catch records and annual summaries, 1964-66 (filed by year).

A0/17/18 Weighted mean hypural lengths of Babine sockeye, by sex, stream and year, 1962-71.

A0/17/19 Water Quality Data Report by the Inland Waters Branch for the Babine R. at Fort Babine, 1972-73.

A0/18/1-20/8: Computer printouts:

...18/1 Results of multiple discriminant analysis which was used to distinguish between upper/lower Babine R. sockeye and Fulton R./Pinkut Cr. sockeye at the Babine fence in 1970. Tested using tag recovery data. Analysis is based on samples grouped by age/sex (e.g. age 1.2 females). Discriminant function developed from various scale measurements and, perhaps, hypural lengths collected from Babine stocks, 1962-69.

...18/2 As in "18/1" but 1969 is analysed using 1962-68 data.

...18/3 Daily regressions of log K (fish condition factor) on log weight of Eubothrium parasites - Babine smolts, unknown year.

...18/4-5 Scale measurements, ages and sampling data (e.g. sex and length) from sockeye spawners in upper and lower Babine R., Morrison R., Fulton R. and Channel, Pinkut Cr. and Channel, and 4-Mile, 5-Mile, 6-Mile, 9-Mile, Tachek, Sockeye, Twin, Pierre and Grizzly Crs., 1970-71.

...18/6 Mean lengths, weights, circuli nos. and annulus widths, with variances, for parasitized and non-parasitized Babine smolts: Separately (1952-56, 1968-71, 1973) or combined (1950, 1957-65). Summaries are by year and post-1957 years also have early and late runs summarized separately.

...18/7 Length and weight summaries of Babine smolt migrants: (1)for each day, (2)for early and late runs (1966-67 only) and (3)for the year. Parasitized and non-parasitized smolts are summarized separately in 1951. Data covers 1951 and 1966-67.

...18/8 Listing of sampling (?) data for Babine smolts, 1951.

...19/1 Tests of differences between Babine stocks of adult sockeye in each of 6 characters: Length, A-1, A-2, C-1, C-2 and A-1/C-1. ('A' and 'C' are annulus zone width and circuli no., respectively, and the number identifies the annular zone). Duncans multiple range test is used on data sets organized by age and year, 1962-68.

...19/2 Multiple discriminant analysis using scale characters (and lengths?), to assign adult Babine sockeye to Fulton R./Pinkut Cr. or Babine R. (upper and lower). Data is grouped by age, sex and year, 1962-68.

...20/1 Data from holding Eubothrium infected and non-infected sockeye smolts in fresh water and salt water at PBS. The smolts were from Babine. Data from control and test tanks includes lengths, weights and mortalities of smolts and parasite numbers and weights, 1968.

...20/2-5 Means and variances of hypural lengths and 10 scale characters of adult sockeye sampled from 15 Babine stocks - by stock, year, sex and age, 1962-71.

...20/6 Test of ability of multiple discriminant analysis factors to correctly assign adult sockeye by age and sex to Pinkut/Fulton or upper/lower Babine groups (?). Factors were developed from scale characters of 1962-69 samples.

...20/7 Multiple discriminant analysis output using data grouped by age, sex and discriminant group (Pinkut/Fulton or upper/lower Babine R.) but using combined years, 1962-69.

...20/8 Digitizer output (?) with measurements of scales for sockeye pin tag recoveries from Prince Rupert and Babine streams, 1970.

A0/20/9 Babine fence records - daily and cumulative counts for adults (all salmon spp. and steelhead), water temperatures and levels, weather, tagging and pintag recovery records and diaries of fence operations (also contain pink lengths, by sex, and length frequency data), 1970-71.

A0/20/10 (1)Duplicate records of 1970-71 Babine fence counts (adults); (2)Babine fence sockeye enumeration program, daily counts, 1972-82; and (3)counts of "other salmon" and steelhead, Babine fence, 1982.

A0/20/11 Meziadin R. fishway counts for sockeye, chinook and coho (with seperate jack count), 1966-82.

A0/21/1 Records of sockeye spawning in Babine streams, with data on spawner densities and timing of entry and die-off (by stream).

A0/21/2 Daily fence counts and annual totals of sockeye spawners in Pinkut Cr. and Fulton R., broken down into nos. in stream and spawning channel (1967-72); and (2)water temperatures during spawning, 1964-71.

A0/21/3 Data on seasonal variation in length and age compositions of sockeye spawners in Babine spawning streams, 1962.

A0/21/4 Original copy of the Skeena salmon stream catalogue, with 1904-64 escapements, which was published as FRB MS Report No. 882.

A0/21/5 Skeena salmon stream catalogue (secs. 1-3 and 5 of MS Report No. 882).

A0/21/6 "Stream index cards", each giving location and physical data about a Skeena stream or lake and having references to publications about the system.

A0/21/7 Detailed maps of streams showing water levels, spawning observations and locations of previous research efforts.

** AP **

FEEDING AND DISTRIBUTION OF UNDERYEARLING SOCKEYE IN BABINE LAKE

YEARS: 1965-70

SIZE: 5 boxes

DESCRIPTION

This is data from Narver's studies of juvenile sockeye in Babine L. and mostly concerns their distribution, especially vertical distribution, and their feeding and how these measurements correspond to plankton, light and temperature data taken coincidentally at various depths. The fish data include (1)echograms showing distributions and (2)set, catch and sampling data. The sampling data are largely lengths and stomach contents (e.g. amounts and types of food in each of three stomach sections by length class of fish).

HISTORY/SOURCE: Deposited by D. Narver.

INDEX TERMS

Species

Sockeye / Kokanee / Plankton

Life Stage

Fry / Smolt / Juvenile

Statistical Area

4 (Skeena R.) / 4-4 (Babine)

Location

Nilkitkwa L. (4-4) / Babine L. (4-4) / 9-Mile Cr. (4-4) / Sunnyside (4-4) / Halifax Narrows (4-4) / Old Fort (4-4) / Fulton R. (4-4) / Port Arthur (4-4) / Sockeye Pt. (4-4) / Pierre Cr. (4-4) / Black Pt. (4-4) / Gullwing Is. (4-4)

Aspect

Abundance / Beach seine / Body size / Calibration / Carbon 14 / Catch composition / Charts / Chemical limnology / Diurnal variations / Echo sounding / Experimental fishing / Freshwater ecology / Gillnets / Horizontal distribution / Light penetration / Limnology (Physical) / Literature reviews / Methodology / Midwater trawls / Photometers / Primary production / Purse seining / Size distribution / Stomach content / Vertical distribution / Vertical migrations / Weather conditions / Zooplankton

REGISTER: RECORD GROUP AP

AP/1/1-31 (Excepting 1/28): Echograms from Babine L. (ordered from N. to S.):

...1/18-19 Nilkitkwa L. - July to Sept., 1968.

...1/1-3,5-17 Nine Mile Cr. area - July, Aug. and Oct., 1967 and July to Nov., 1968.

...1/30 Sunnyside area - July 17, 1967.

...1/22,24 Port Arthur area - July 4-5, 1966, and July 24-25, 1967.

...1/20,21,23,29 Sockeye Pt. area - June 26, 1966, and Aug. and Sept., 1968.

...1/4 Pierre Cr. area - Aug. 28-29, 1967.

...1/26-27 Black Pt. area - Aug., 1968.

...1/25 Gullwing Is. to Black Pt. - July 29, 1966.

...1/31 Unlabelled echogram - Aug. 21-22, 1969.

AP/1/28 Graph with data on the vertical distributions of sockeye underyearlings and temperatures by time of night for the night of Aug. 7-8, 1968, when a full moon was out.

AP/1/32 Anthology of literature re: diel vertical movements.

AP/1/33-2/7: Field books and raw data from the Lacustrine Ecology investigation of Babine L.:

...1/33-34 Water temperature, Carbon 14, pH and alkalinity data (books I and II), 1966.

...1/35 Underwater photometer readings and calibrations, 1968.

...1/36 (1)Set data from 24 hr. seining and trawling series, (2)resulting catches of kokanee and juvenile sockeye, and (3)record of concurrent plankton hauls, 1967.

...1/37 Zooplankton and fry sampling data from Fulton R. area, 1970.

...1/38-39 Water chemistry data (books I and II), 1967.

...1/40-42 Zooplankton counts from stations at Sunnyside, Old Fort and in the basin N. of Halifax Narrows, 1967.

...1/43-45 Data from plankton tows in the Sunnyside, Nine Mile and main lake areas, 1967-68.

...1/46 Beach seine, gillnet and townet catches of age 0. sockeye, 1966.

...2/1-4 Stomach contents and lengths of age 0. sockeye, 1967.

...2/5-7 Daily weather observations at Port Arthur and Halifax camps, 1966-68.

AP/2/8 Tables and graphs showing the stomach contents, by size category, of age 0. sockeye that were caught in 24 hr. series off Nine Mile and Pierre Crs., 1967.

AP/2/9 Zooplankton data (books I-III), 1968.

AP/3/1 Textual information on use of echo-sounding in fish studies.

AP/3/2 Stomach contents and lengths of sockeye smolts caught in Halifax Narrows (Babine L.) by surface trawling, May, 1968.

AP/3/3 (1)Relationship of trawl catches to number of echo sounder targets, (2)plankton data, and (3)stomach contents data (% occurrence of food types by size of fish and food volume in stomach), 1967.

AP/3/4 Temperature profiles, 1968.

AP/3/5 Various charts and maps of the Babine area.

AP/3/6 Stomach analyses and lengths of juvenile sockeye caught near Nine Mile and Black Pts., 1968.

AP/3/7 Duplicate sample data and records of surveys on Babine L., with summaries and evaluations, 1968.

AP/3/8 (1)Stations off Old Fort and Nine Mile Pts. on Oct. 18, 1968 - light measurements by depth and time and set data, catches and length frequencies of age 0. sockeye in trawl; (2)nos. of various food groups by stomach section for age 0. sockeye of different size categories; and (3)set data, catches and length frequencies of age 0. sockeye trawled from various locations in Babine and Nilkitkwa Ls., May 19 to Sept. 21, 1968.

AP/3/9 Food of age 0. sockeye caught at several Babine L. locations in 1968: (1)Weight of food in each stomach section expressed as % of body weight; and (2)species composition of food in foregut and hindgut sections. Some of the data from the main basin was broken down by the depth layer occupied by the underyearlings.

AP/3/10-4/1 Printout with zooplankton data on quantities and species compositions by depth and location, 1969-70.

AP/4/- to 5/- Echograms recorded at Babine L. and marked with the time, the area and a scale of depth, 1965-69.

** AQ **

SKEENA/BABINE STUDIES

YEARS: 1919-73, 1975

SIZE: 16 boxes

DESCRIPTION

This group has been divided into 6 sub-groups which are described below. AQ is mostly data from Skeena sockeye and pink investigations from the 1940's to the 1960's. There is some Cultus L. and Nass R. data also.

1. Counts, catches, sampling data etc. from exploratory surveys of Skeena sockeye systems, old escapement records from Skeena streams, sampling data from the Skeena fishery and historical records such as stocking and egg collection records for early sockeye hatcheries at Lakelse, Morrison and Stuart Ls.: 2/12-13; 3/6-9,18,20; 4/11; 5/8; 6/15; 7/3-5; 10/1; 14/1-3.

2. Tagging and marking data from Areas 3-5 (mostly sockeye and pink in Area 4) and recovery data from the fishery and in freshwater. Most of the data is from 1956-58 but some is earlier: 6/12-14; 7/1,2,6; 8/1; 9/1-3; 12/3-4; 13/1,2,4.

3. Egg to fry and adult pink data from the Skeena R. and tributaries (largely from the "Skeena R. Pink" and "Skeena Mainstem" studies of the 1950's and early 1960's: 1/1; 2/6,6a,8,14-36; 3/1-5,11-17,19,21-36; 4/3,5-10,12-31; 5/1-4,6,13; 15/10.

4. Babine system: (a)limnological data; (b)data on underyearling sockeye in Babine L. and sockeye fry and smolts at the outlet; (c)mark quality and mark recovery data from markings of sockeye fry at Fulton R. and Pinkut Cr.; (d)adult fish counts and sampling data from the Babine fence and Babine spawning grounds; and (e)spawner behaviour data from a sockeye study at 4-Mile Cr.: 2/3-4; 3/37-40; 4/1-2; 5/7,10-12,14-16; 6/1-11; 8/2-3; 9/4-10; 10/1; 11/1-2; 12/4; 14/1,5-7; 15/1-9,11-12,14; 16/1-9.

5. Early (pre-1955) studies in the Lakelse system on limnology and on the ecology of sockeye and resident fishes: 1/2-22; 2/1,2,7; 5/17; 10/2; 13/3; 14/3; 16/6.

6. Miscellaneous: The largest part of this sub-group is data and diagrams on development and evaluation of a photo-electric smolt counter at Babine fence. There is also a large group of cards containing stomach content, sampling and scale character data from fish and birds that were sampled by Foerster's investigation in the Cultus L./Sumas R. area in the 1930's. The other files each deal with separate topics, e.g. scales from salmon caught by fishwheels in the Nass R.: 2/5,9-11; 3/10; 4/4; 5/5,9; 12/1,2,2(a); 14/4-5; 15/13; 16/11.

HISTORY/SOURCE: Unknown

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Kokanee / Steelhead / Fish / Plankton / Other

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 5 (Grenville-Principe) / 17 (Nanaimo) / 29 (Fraser R.) / 29-3 (Chilliwack) / 29-7 (Nechako)

Location

Alaska / Aiyansh (3) / Nass R. (3) / Nass system (3) / Portland In. (3) / Skeena system (4) / Skeena R. (4) / Chatham Sd. (4-1) / McLean Pt. (4-1) / Port Essington (4-1) / Kwinitsa R. (4-2) / Gitnadoix R. (4-2) / Alastair L. (4-2) / Lakelse R. (4-2) / Lakelse L. (4-2) / Williams Cr. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Kitsumkalum (Kalum) R. (4-2) / Zymoetz (Copper) R. (4-2) / Kleanza Cr. (4-2) / Kitwanga R. (4-2) / Kispiox R. (4-2) / Stephens L. system (4-2) / Swan L. (4-2) / Morice L. (4-3) / Motase L. (4-3) / Bear system (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Babine R. (Lower) (4-4) / Babine system (4-4) / Nilkitkwa L. (4-4) / Fort Babine (4-4) / Babine L. (4-4) / Morrison L. (4-4) / Fulton R. (4-4) / Pinkut (15-Mile) Cr. (4-4) / 4-Mile Cr. (4-4) / Browning Entrance (5) / Ogden Chan. (5) / PBS (17) / Sumas R. (29-3) / Cultus L. (29-3) / Stuart L. (29-7)

Aspect

Acclimation / Aerial surveys / Age composition / Aquatic birds / Biomass / Body size / Body weight / Calibration / Catch composition / Catch/effort / Coastal fisheries / Dredging / Echo surveys / Enclosures / Endoparasites / Escapement / Experimental fishing / Fatigue / Feasibility / Fish counters / Fishing power / Fluvial morphology / Freshwater fish / Gillnets / Grading / Gravel / Growth / Hatcheries / Historical account / Horizontal distribution / Jacks / Lake morphology / Lenitic currents / Light effects / Limnology (Chemical) / Limnology (Physical) / Marking / Mesh selectivity / Methodology / Mortality / Nursery grounds / Population number / Predation / Redd sampling / Reproductive behaviour / Scale impression cards / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Seasonal variations / Sex ratio / Size distribution / Spawning / Spawning grounds / Stocking (Organisms) / Stomach content / Survival / Tagging / Test fishing / Trap fishing / Vertical distribution / Weather conditions / Weirs

REGISTER: RECORD GROUP AQ

AQ/1/1-2/2: Lakelse system:

...1/1 Adult pink surveys in Lakelse R., 1965.

...1/2 Record books from an experiment to assess the efficiency of the standard gillnets used at Lakelse L. in catching a known population of lake fish impounded in the lake, 1947.

...1/3 Record book with fence counts of coarse fish and creel census data, Lakelse R., 1956.

...1/4 Lakelse R. fence counts of "other" fish and length frequencies for cutthroat trout, 1953.

...1/5 Data from a predator study in Lakelse R., 1953.

...1/6 Catch and sampling data from gillnetting in Lakelse L., 1956.

...1/7-9 Stomach analyses data from creel and gillnetting samples in Lakelse L., 1953-54.

...1/10 Creel census data, 1953.

...1/11-12 Marking records from the lake and recoveries of marked cutthroat, Dolly Varden and whitefish at the Lakelse R. fence, 1952-53.

...1/13-2/2 Twelve files with set data and catches by mesh size from netting in the lake: (1)Standard gillnetting, 1947-49; (2)experimental gillnetting, 1947 and 1954; (3)standard gillnetting, 1950-53; (4)winter (under ice) gillnetting, 1952; and (5)trap (fyke) netting to obtain lake fish for marking, 1953.

AQ/2/3-4 Diaries of sockeye fry trapping and experiments - lower Babine R. and the Babine fence, 1966.

AQ/2/5 Schematic diagram of photo-electric smolt counter.

AQ/2/6 Charts and diagrams re: proposal to dredge portions of the Skeena R.

AQ/2/6a Lakelse R. (Coldwater Cr. to Hermann Cr.) - aerial photos and redd sampling diagrams.

AQ/2/7 Lakelse L. water levels, 1946-53.

AQ/2/8 Lakelse R. topographical maps and profile charts.

AQ/2/9-11 Construction blueprints and drawings of the Babine fence, 1966.

AQ/2/12-13 Sockeye age and length compositions for the Skeena system, 1965-66.

AQ/2/14-16 Lakelse R. surveys to estimate escapements of pinks and other spp. (strip count and tagging data), 1958-60.

AQ/2/17 Lakelse R. aerial escapement surveys with transcriptions of verbal comments, 1956-57.

AQ/2/18 Pink fry catches by depth of trap in Kispiox, Kitwanga and Lakelse Rs., 1958-59.

AQ/2/19 Lakelse R.: maps of types of stream bed and adult pink tagging records, 1960.

AQ/2/20-33: Pink fry catches from surface traps and, after 1959, from traps at various depths:

...2/20-26 Lakelse R., 1956-61 (filed by year). Includes records from "double netting" in 1958.

...2/27 Summary of the 1956-60 data in files 2/20-25.

...2/28 Lakelse and Kitwanga Rs., 1961. Includes an estimate of total fry migrants and an escapement survey.

...2/29-33 Lakelse R., 1962-63. Includes sockeye and coho smolt catches.

AQ/2/34-35 Lakelse R. - adult survey data, 1963-64.

AQ/2/36 (1)Summary of pink escapements to Lakelse R., with tagging error calculations (1960-65); and (2)a text titled "Estimation of the 1957 Lakelse R. pink spawning run."

AQ/3/1 Lakelse R. - redd sampling data (pinks), 1962-63.

AQ/3/2 Lakelse R. - weather data, data from a spawning ground survey and a diary with set records, catches and tag recoveries, 1964.

AQ/3/3 Gitnadoix R. - records of pink(?) fry trapping, 1959.

AQ/3/4-5 Lakelse R. pinks: (1)tagging records, 1960-64, and (2)file reports on "Re-estimate of pink salmon spawning run at Lakelse R., 1955" and "Pink redd sampling in the Lakelse R., 1956".

AQ/3/6-7 Stream reports from aerial escapement surveys in the Skeena area, 1959-60.

AQ/3/8 Skeena system: Misc. notes and historical data, 1922-55.

AQ/3/9 Skeena system spawning ground reports (all spp.), 1958 and 1961.

AQ/3/10 Correlation of returns of Skeena sockeye with Skeena R. discharge when they left as smolts, 1928-58.

AQ/3/11 Activity reports for the Skeena Pink Investigation, 1956-58.

AQ/3/12-15 Pink escapements in the Skeena system (with aerial stream survey reports and observations on spawning, by tributary), 1956-57 and 1963 (with a a summary of past escapements).

AQ/3/16 Catches, diaries and pink tag return data from fish wheel operations on the lower Skeena R., 1963.

AQ/3/17 Pink fry outputs from Kispiox, Kitsumkalum, Lakelse and Kwinitsa Rs. and progress reports for Skeena Pink Investigation, 1956.

AQ/3/18 Sockeye age/length compositions in the Skeena system, 1964.

AQ/3/19 Spawning ground surveys of Kitwanga, Kispiox and Copper (Zymoetz) Rs. with lengths, tag recoveries and diaries of observations, 1965.

AQ/3/20 Hypural lengths of 2.2 sockeye from different Skeena stocks.

AQ/3/21-36: Kitwanga R. pinks (with some data on sockeye, coho and chum):

...3/21-25 Pink fry catches and by-catches of sockeye, coho and chum fry; sockeye and coho smolts; and resident fish. Fish were caught by surface traps up to 1959 and then by traps at various depths. Files are by year, 1957-61.

...3/26-33 Escapement estimates and accounts of surveys using fences, spot counts, strip counts, counts from a bridge and tag recovery estimates (1958-64). Also includes some sampling data (e.g. 1961-62).

...3/34 (1)Spawner surveys with lengths, sex compositions, and conditions and (2) counts of pink, sockeye and coho fry and smolts, 1957.

...3/35-36 Record books with strip counts of spawners, 1964-65.

AQ/3/37-4/2: Babine fence counts and sampling data for sockeye and the other salmon spp.:

...3/37 Adult length frequencies, sex ratios and % jacks, 1946-52.

...3/38 Sockeye smolts - lengths, weights, sexes, ages, circuli counts, stomach contents and parasite incidences and loads, 1951.

...3/39 Length frequencies of adult sockeye by sex, with jack counts, 1955.

...3/40 Length frequencies of adult sockeye by time of day, 1957.

...4/1-2 Daily length frequencies of adult sockeye, 1958-59.

AQ/4/3 Escapement survey data from Kitwanga R. and Kleanza Cr., 1959.

AQ/4/4 Notes on artificial propagation.

AQ/4/5 Discussion and report (with spawning data) re: pink salmon and the effect on them of dredging the mainstem of the lower Skeena R., 1965.

AQ/4/6 Kalum (Kitsumkalum) R. - pink fry catches from surface traps, 1956.

AQ/4/7 Enumeration of pinks on the mainstem of the lower Skeena R., 1963.

AQ/4/8-9 Netting and survey data from the mainstem of the lower Skeena R., 1964-65.

AQ/4/10 Summary and evaluation of Skeena mainstem studies, 1962-64.

AQ/4/11 Tagging data from McLean Pt. on lower Skeena and spawning ground reports from surveys in the upper Skeena system, 1960.

AQ/4/12-13 Skeena R. mainstem study - raw data from tagging and surveys, 1958-59.

AQ/4/14-16 Catches of pink fry from traps in the Skeena R. at Kwinitsa, 1956-58 (filed by year).

AQ/4/17-30: Kispiox R. pinks:

...4/17 Air and ground surveys of spawners, 1956.

...4/18-23 Fry catches from surface traps and, after 1959, from traps at various depths (filed by year), 1956-61.

...4/24 Adult survey data and activities summary, 1958.

...4/25-26 Adult survey data and tagging records, 1959-60.

...4/27 Adult survey data with tagging and tag return data from spawning grounds, 1961.

...4/28 Diary and tables re: winter surveys, 1962-63.

...4/29 Adult survey data and daily journal (includes 1962 tag nos.), 1963.

...4/30 Tagging data, tower counts, hypural lengths and stream temperatures and levels, 1961-62.

AQ/4/31 Kispiox R. and Kitwanga R. pink tagging and stream recovery data, 1963.

AQ/5/1-4: Kleanza Cr. pink hatchery:

...5/1 Diary, 1957-58.

...5/2 Fry release data, 1958.

...5/3 Egg take records, 1958.

...5/4 Fry release data, including experiments with release troughs and special release methods, 1959.

AQ/5/5 Sockeye length frequency and sex data and stream survey reports for Williams and Scully Crs. (includes data on cutthroat trout and other non-salmon), 1960.

AQ/5/6 Fry release data from Kleanza pink hatchery, 1960.

AQ/5/7 Resident fish counts at Babine fence, 1955.

AQ/5/8 Babine, Morice and Bear L. field books - sockeye spawner surveys with sexes, lengths and conditions, 1956.

AQ/5/9 Field books, data and other records re: evaluation of photo-electric smolt counter at Babine fence, 1966.

AQ/5/10-12 Four Mile Cr. sockeye spawning study, 1965: (1)Spawning behaviour observations, (2)gravel and water measurements on spawning grounds and (3)dead recoveries.

AQ/5/13 Notes from a survey of types of stream bed in Kispiox R., 1960.

AQ/5/14 "Stadia survey of lower Babine R." (detailed mapping of the lower river down to the fence), 1966.

AQ/5/15 Fort Babine trap: Diary and field records of sockeye smolt trapping and marking, 1959.

AQ/5/16 Scales from Babine sockeye smolts (for parasite and transplant studies), 1956-68.

AQ/5/17 Scale measurement cards for Lakelse sockeye smolts, 1953-54.

AQ/6/1-11 Babine sockeye smolts: Annual record books with Nilkitkwa L. marking/tagging records, recovery data, weather data and other environmental measurements, 1963-73 (except 1971).

AQ/6/12-14: Recoveries of all salmon spp. and steelhead tagged in 1957 from Portland In. to Browning Entrance and in 1958 from Chatham Sd. and Ogden Chan:

...6/12-13 Recoveries in the Skeena fishery, 1957-58.

...6/14 Freshwater recoveries and fishery recoveries in Areas 3-5 and in Alaska, 1957.

AQ/6/15 Pink samples from Skeena fishery, 1957-58: (1)Circuli nos. and scale and scale zone widths by size of fish; and (2)circuli nos. (total and by zone). File incidentally gives length frequency and zone width frequency data, by the width of the zone.

AQ/7/1 Tagging data from Chatham Sd./Ogden Chan. (with lengths) and tag recovery data for all spp. (especially sockeye), 1958.

AQ/7/2 Fin-marking sockeye and pinks in the Skeena fishery: Marking and recovery data, correspondence, procedural guidelines and program proposals, 1948-53.

AQ/7/3-5 Lengths, weights, sexes and ages from sockeye landings in the Skeena fishery, 1925-30 (Port Essington), 1931-39 (Port Essington and Carlisle) and 1940-48.

AQ/7/6-8/1 Tag recovery cards for Skeena pinks and sockeye, showing tagging and tag recovery information and days out for early 1950's and 1958-59.

AQ/8/2-3 Tag recovery data from taggings of adult sockeye at Babine fence, with days out information, 1947 and other unidentified year(s).

AQ/9/1-3 Tagging records for all salmon spp. and steelhead tagged in the Portland In. to Browning Entrance area (1956-57) and in Chatham Sd. and Ogden Chan. (1958).

AQ/9/4 Grading of quality of fin clips on marked Fulton R. and Pinkut Cr. fry that were recovered in Babine L. (mark illustrations and scores), 1966.

AQ/9/5 Grading of fin clips at Fulton R., 1966.

AQ/9/6 Recoveries of marked sockeye fry from Fulton R. and channel in Babine L., 1967.

AQ/9/7 Lengths, weights and grading of marks on sockeye fry in Fulton R., 1968.

AQ/9/8 Mark grading of sockeye fry from Fulton R. and channel, 1968.

AQ/9/9 Recoveries of marked adult sockeye on spawning streams in the Babine L. system, 1970.

AQ/9/10 Echograms from "Tahlok" seining/trawling operations on Babine L., 1973.

AQ/10/1 Rough field record books: (1)Kitwanga system - temperature records, lake levels, notes on dredging (at Lakelse L.), sounding and netting studies and stream observations, 1945-47; (2)Babine system - data from netting, physical and chemical limnological surveys (including soundings) and stream surveys, 1944; (3)Babine system - diary of a winter trip by Foskett, netting records, stream counts, plankton data, sounding, temperature data and tag recovery data, 1945; (4)lengths, weights and sex of sockeye tagged at Babine fence, 1946-47; (5)"fires and logging on Babine L.", 1947; and (6)lake surveys (oxygen, plankton, soundings, etc.) of Babine, Morrison and Morice Ls.

AQ/10/2 Analyses of contents of cutthroat trout stomachs from the Lakelse system, 1944 and 1947-52.

AQ/11/1 Field records and scale samples from Babine fence, Babine L. and tributaries to Babine L., 1945-47. Books include sampling data, catch data, scales, etc., on salmon and resident fish that were sampled on the spawning grounds or caught by gillnets on Babine L. or its tributary lakes.

AQ/11/2 Stomach content analyses of gillnet catches of resident fish in Babine and Morrison Ls., 1944-48.

AQ/12/1-2 Index cards from studies by Foerster in the Cultus L./Sumas R. area: (1)stomach contents and sampling data, primarily from squawfish, cutthroat trout and kokanee, but also from Dolly Varden, sculpins, seven other resident fish spp., steelhead and coho and a few bird samples; and (2)scale measurements from trout and sockeye - 1935-38.

AQ/12/2(a) Cultus L. pinks - lengths(?) and records of egg collections (by W.E. Ricker), 1933.

AQ/12/3-13/4: Cards with freshwater recovery data for taggings of all spp. and steelhead (but especially sockeye) off the mouth of the Skeena R. and elsewhere in Areas 3-5:

...12/3 1944-45.

...12/4 1945-46 (including Babine fence recoveries and tagging data from Babine fence).

...13/1 1947.

...13/2 1946 and 1955-56 (including commercial, Indian and Test fishing recoveries).

...13/4 1957 (including Indian and Test fishing recoveries).

AQ/13/3 Ages of cutthroat trout, creel census data and scales from the Lakelse system, 1953.

AQ/14/1 (1)Field survey data on Babine, Kitsumkalum, Morice and Kitwanga Ls., 1944-48. Includes netting records and limnological data on benthos, depths, temperatures and plankton; (2)stomach contents data from fish caught in lakes in the upper Skeena system, 1944-48; and (3)index to salmon streams and lakes in the Skeena system, giving locations and descriptions.

AQ/14/2-3 Stomach contents data for fish caught in Skeena lakes: Alastair, Kitsumkalum, "Kispiox" (Swan/Stephens), Morice and Kitwanga, 1944-47, and Lakelse (cutthroat and Dolly Varden), 1945-51.

AQ/14/4 Mortality and "revitalization" data from 1968 transfer of sockeye smolts from Babine to PBS for Eubothrium parasite studies, 1972.

AQ/14/5 Misc. tables and graphs re: sockeye smolt studies at Babine fence, 1964-65: (1)changes in vertical and horizontal distribution of penned sockeye smolts as a function of light; (2)photoelectric counter calibrations at 3 stations on fence; (3)net studies; (4)fence counts; and (5)comparison of photoelectric counter estimates with mark/recapture estimates.

AQ/14/6 Proposed area divisions for Babine L. acoustical surveys, 1975.

AQ/14/7 Transparency of a map showing the bottom morphometry of Babine R. near the fence, 1966.

AQ/15/1 "Mean lengths and weights of Babine sockeye smolts weighted to abundance in 7 day periods, early and late runs, 1951-70".

AQ/15/2 Daily and seasonal sockeye smolt output from Babine L., 1961-71.

AQ/15/3 Data on the recovery of adult sockeye which were pin-tagged as smolts, with data on mean size at release, 1966-68.

AQ/15/4 "Locations of Dr. Farmer's buoy stations" for Babine L. physical limnology study, 1973.

AQ/15/5 "Life stages, survival estimates and factors limiting success of Babine L. sockeye."

AQ/15/6 "Size and survival of seaward migrant sockeye, Babine L.", 1966-68.

AQ/15/7 Percent return of adults (3's,4's and 5's) by size class of fry for the 1966-67 releases of marked Fulton R. and Pinkut Cr. sockeye.

AQ/15/8 Graphs and tables on Babine sockeye smolts, with data on mean weights and lengths, growth rates, scale measurements, and parasites (Eubothrium), 1961-73.

AQ/15/9 Graphs (some incompletely labelled) showing change, with time of season, in nos. and biomass of age 0. sockeye and in plankton standing stock. Unknown year(s).

AQ/15/10 Skeena pink salmon escapements and production of pinks in Lakelse R. compared to other areas of the Skeena system, 1950-66.

AQ/15/11 Map of Babine L. showing bubble line system and plankton and thermister stations in relation to enhancement projects, 1973.

AQ/15/12 Data on the effect of Eubothrium parasites on the swimming performance of sockeye smolts and on the amount of plus growth on smolt scales, 1966-68.

AQ/15/13 Blueprint of Babine R. fence, 1966.

AQ/15/14 Sockeye escapement estimates and accounts of stream clearance work on tributaries to Babine L., 1961.

AQ/15/15 Escapement survey cards for Skeena system streams, 1919-49.

AQ/15/16 Field notes and scale samples from studies of lakes of the upper Skeena system (eg. Bear, Sustut, Johanson and Motase). Includes netting records, lengths, weights and limnological data, 1945-48.

AQ/16/1-9: Data from W.E. Johnson's studies:

...16/1 Vertical temperature profiles for Babine and Nilkitkwa Ls., 1958-62.

...16/2 Zooplankton weights by transect of Babine L., 1957-68.

...16/3 Temperatures at the outlet of Babine L. in July and August, 1962.

...16/4 Mean weights of sockeye underyearlings by time of year and section of Babine L., 1956-63.

...16/5 Comparison of underyearling sockeye growth in different areas of Babine L., 1957-64.

...16/6 In-lake growth in weight of juvenile sockeye from Lakelse, Babine and Cultus Ls., 1955-57.

...16/7 Temporal variations in zooplankton weights at Babine L. stations, 1956-59.

...16/8 Map plots of parts of Babine L. showing location and movements of surface schools of sockeye smolts and current drogues, 1960.

...16/9 (1)CPUE vs. time of season regressions for underyearling sockeye catches in Babine and Nilkitkwa Ls.; and (2)water temperatures from stations on Babine L., 1956-63.

AQ/16/10 (1)Stream cards for Skeena and Nass salmon streams with annual escapement estimates and some notes about the spawning grounds (1925-50); and (2)similar cards with records of out-plantings, egg takes, etc., from the early sockeye hatcheries at Lakelse L. ("Skeena Hatchery"), Morrison L. ("Babine Hatchery") and the Stuart L. Hatchery (1920-36).

AQ/16/11 Scale samples from fishwheels nos. 1 and 2 on the Nass R. at Aiyansh, 1957. Lengths, sex, condition and species were also noted.

** AR **

EFFECTS OF THE PARASITE EUBOTHRIUM SALVELINI ON JUVENILE SOCKEYE

YEARS: 1952-73

SIZE: 1 box

DESCRIPTION

This group of files from H. Smith has observational data on incidences and loads of the endoparasite Eubothrium salvelini in juvenile sockeye and on lengths, weights, conditions, scale characters and lipid contents of parasitized vs. non-parasitized fish. Almost all the data is for Babine L. underyearlings and smolts and includes data on another parasite, Philonema. There is comparative data from the Lakelse system, Robertson Cr., Rivers In. and Kootenay Lake. There is also some experimental data from tests of the effect of parasitization on swimming performance and osmoregulatory ability.

HISTORY/SOURCE: H. Smith

INDEX TERMS

Species

Sockeye / Kokanee / Plankton / Other

Life Stage

Fry / Smolt / Mature

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-4 (Babine) / 9 (Rivers In.) / 23 (Barkley Sd.)

Location

Lakelse system (4-2) / Nilkitkwa L. (4-4) / Babine L. (4-4) / Babine R. (4-4) / Fulton R. (4-4) / Owikeno system (9) / PBS (17) / Robertson Cr. (23) / Great Central L. (23) / Kootenay L. (Kootenay system)

Aspect

Abundance / Acclimation / Analytical techniques / Body size / Body weight / Calibration / Catch composition / Condition factor / Endoparasites / Escapement / Experimental culture / Experimental fishing / Fatigue / Fats / Length-weight relationships / Life cycle / Locomotion / Marking / Monitoring / Mortality / Osmoregulation / Parasitology / Population number / Regional variations / Scale reading (Circuli measurements) / Size distribution / Temporal distribution / Trap fishing / Trawling / Zooplankton

REGISTER: RECORD GROUP AR

AR/1/1-24: Study on the effects of the parasite Eubothrium salvelini on juvenile sockeye in the Babine system:

...1/1-6 Lengths, weights and parasite incidences of underyearlings from townet catches in Babine L., 1956-57, 1959-61 and 1966 (filed by year).

...1/7 (1)Procedures for testing smolts; and (2)daily smolt output with daily parasite incidences, 1972-73.

...1/8 (1)Daily parasite incidences in smolts; and (2)lengths, weights and parasite loads of juveniles at Babine fence and in other Babine areas, 1970-71.

...1/9 Daily parasite incidences and lengths and weights of smolts, 1970.

...1/10 Laboratory test to assess the accuracy of parasite sampling, 1969.

...1/11 Lengths, weights and lipid content of parasitized and non-parasitized samples, 1967.

...1/12-13 Correspondence and figures re: "Observations on the cestode E. salvelini in juvenile sockeye salmon at Babine L., British Columbia", 1973.

...1/14 Rough draft for MS on Eubothrium in Babine sockeye, with plankton data (re: intermediate host) and raw data on temporal changes in infection during smolt run, 1966-67.

...1/15 Lengths, weights and parasite loads of infected smolts and incidence of infection, 1969.

...1/16-17 Parasite incidences and lengths, weights and conditions of parasitized and non-parasitized smolts, 1968.

...1/18 (1)Swimming performance of parasitized and non-parasitized smolts; (2)daily smolt estimates with parasite incidences; (3)file paper on parasite studies; (4)Eubothrium and Philonema infections; and (5)length/weight data for Eubothrium.

...1/19 Lengths, weights and conditions of parasitized and non-parasitized smolts that were marked as fry at Fulton R., 1967.

...1/20 (1)Comparison of the size and nos. of parasitized (Eubothrium and Philonema) and non-parasitized smolts; (2)relative abundance of size categories of Eubothrium; and (3)data from the early and late parts of the run, 1966.

...1/21 Observations and conjecture re: Eubothrium cycle in Babine L. (based on pre-1966 data).

...1/22 (1)Daily lengths, weights and parasite incidences of smolts and daily smolt abundance estimates; and (2)procedures for experiments with parasitized smolts, 1967.

...1/23 (1)Comparison of parasite incidences relative to size of parent escapement (1952-70) and comparison of incidences in townet catches from different parts of Babine L.; and (2)parasite sample data (size, etc.), 1967.

...1/24 Correspondence on parasite studies, 1968-71.

AR/1/25 Lengths and weights of Robertson Cr. sockeye smolts and their incidence of parasite infection, 1971-72.

AR/1/26 Some notes on parasite studies that were "not used in papers" (e.g. on "crowding effect"), 1973.

AR/1/27 Lengths, weights and conditions of parasitized and non-parasitized sockeye fry transferred from Babine L. to PBS, 1970.

AR/1/28 Comparison of lengths, weights and conditions of Babine smolts with: (1)sockeye from the Lakelse and Owikeno systems; and (2)kokanee from Kootenay Lake. 1953 and 1968-69.

AR/1/29 Mortalities, parasite loads, lengths, weights etc. of parasitized and non-parasitized Babine fry held in freshwater and seawater at PBS, 1968. Includes diaries.

AR/1/30-31 Daily lengths, weights and parasite incidences of Babine smolts, 1967.

AR/1/32 Babine smolt data, 1966-67: (1)Length frequencies; (2)parasite loads by length class of smolt; and (3)lengths and weights of E. salvelini by week of smolt run.

AR/1/33 Referee copies of a draft paper on Eubothrium, 1971.

AR/1/34-37 Lengths, weights, conditions and scale data for parasitized and non-parasitized sockeye smolts at Babine traps, 1969 and 1971-73. The 1971 file has a summary of lengths, weights and circuli counts for 1961-72.

AR/1/38 Photos of E. salvelini (1969).

** AS **

SMITH - MISCELLANEOUS

YEARS: 1944-45 and 1947-76

SIZE: 3 boxes

DESCRIPTION

This record group has several files with meeting and committee records, annual reports, research proposals/plans and correspondence. They relate to several projects, e.g. some of H. Smith's activities in Alaska, the Skeena Salmon Management Committee, the Babine Development (i.e. spawning channels) Program and the Babine Watershed Change Program. The latter was an attempt to integrate multi-disciplinary research on resource use questions.

There is also some data - most notably, W.E. Ricker's original data from his marking study of the fish populations of Spear L. (Indiana) in the 1940's. There are other data files but, as the record group title implies, few share the same topic. We refer you to the Register for a description of these topics.

HISTORY/SOURCE: H. Smith.

INDEX TERMS

Species

Sockeye / Pink / Salmon / Fish / Plankton / Other

Life Stage

Fry / Smolt / Mature / Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 7 (Bella Bella) / 8 (Bella Coola) / 14 (Comox) / 23 (Barkley Sd.) / 29 (Fraser R.) / 29-6 (Quesnel-Upper Fraser) / 51 (Vancouver Is.)

Location

Alaska / Cape Thompson (Alaska) / S.E. Alaska / Skeena system (4) / Lakelse system (4-2) / Kispiox R. (4-2) / Bulkley R. (4-3) / Babine system (4-4) / Babine R. (Lower) (4-4) / Babine R. (Upper) (4-4) / Babine L. (4-4) / Granisle (4-4) / Klemtu (7) / Atnarko R. (8) / Vancouver Is. (51) / Qualicum (Big Qualicum) R. (14) / Carnation Cr. (23) / Chilko L. (29-6) / Tsawwassen / Kootenay L. (Kootenay system) / Spear L. (Indiana)

Aspect

Age composition / Aquaculture development / Bibliographic information / Body size / Body weight / Calibration / Carbon 14 / Catch/effort / Chemical limnology / Chemical pollutants / Community composition / Dams / Ectoparasites / Escapement / Feasibility / Fish catch statistics / Fish counters / Fishery regulations / Freshwater fish / Freshwater pollution / Growth / Habitat improvement (Physical) / Harbours / Horizontal distribution / International cooperation / Length-weight relationships / Marine aquaculture / Marking / Methodology / Mortality / Photographs / Pollution effects / Population number / Primary production / Redd sampling / Reproductive behaviour / Samplers / Scale reading (Circuli measurements) / Size distribution / Spawning grounds / Stock identification / Survival / Tagging / Trolling / Underwater photography / Water temperature / Watersheds / Weather conditions / Weirs

REGISTER: RECORD GROUP AS

AS/1/1 [No file]

AS/1/2 Babine Watershed Change Program, 1973: proposals and timetables for assessing the mineral pollution from mining (alterations in water chemistry).

AS/1/3 Babine Environment, 1972: Administrative files regarding water quality and production of salmon.

AS/1/4 [No file]

AS/1/5 Marine Chemistry Committee - notes on inorganic pollution (with some data and a bibliography).

AS/1/6 Carbon 14 estimates of primary production from locations on Vancouver Is. and from elsewhere - sampling dates and results.

AS/1/7-8 [No files]

AS/1/9 Correspondence re: use of photo-electric smolt counters.

AS/1/10 MS draft - "Characteristics of Babine L. Waters" (1972-73).

AS/1/11 Infra-red photography - correspondence regarding its use in making nocturnal underwater observations of fish.

AS/1/12 Miscellaneous topics - (1)Fisheries Council correspondence, (2)commercial catches for Alaskan and northern B.C. fisheries, (3)Big Qualicum rearing channels, (4)shellfish and (5)a discussion of the troll fishery.

AS/1/13 Herring Management Committee - minutes of meetings, 1961.

AS/1/14 Skeena Salmon Management (SSM) Committee - fishery regulations for 1962.

AS/1/15 (1)Salmon survey (catches, escapements, etc.) in S.E. Alaska and (2)"Joint Committee on Salmon Problems - Northern B.C. and S.E. Alaska", 3rd statistical submission. 1961.

AS/1/16 Northern Operations Branch - minutes of Tsawwassen meeting (objectives, procedures and proposals for integrated resource development re: mining, logging, hydroelectric development, etc.) , 1972.

AS/1/17 SSM Committee - bulletins and reports showing catches and escapements, 1961-72.

AS/1/18-20 SSM Committee weekly reports of commercial salmon catches, 1970-75.

AS/1/21 SSM Committee: (1)Annual Reports, 1969-74; (2)Babine smolt production; and (3)fishery regulations.

AS/1/22 Granisle weather records.

AS/1/23-24 SSM Committee - notes, minutes from meetings and correspondence, 1972-73.

AS/2/1 Babine Development Program - notes on assessment of production, 1949-70.

AS/2/2 Babine Development Sub-committee - correspondence, program proposals and expenditures, 1969-70.

AS/2/3 Babine Development Program - outlines of programs and water temperature data.

AS/2/4 Babine Watershed Change Program, 1972 - sampling procedures for chemical pollution study.

AS/2/5 Babine L. pollution - programs by mining companies re: application for pollution control permit.

AS/2/6 Babine L. sockeye production - effect of changes in water quality.

AS/2/7 Babine Joint Committee - (FRBC and Dept. of Fisheries) - reports on procedures for assessment.

AS/2/8 Babine Development - objectives and proposals for environmental studies, with discussions of cooperation with forest and mining industries, 1970-71.

AS/2/9 "Proposed Distribution List" for news releases re: Babine Development Program (with newspaper clippings).

AS/2/10 Babine Watershed Change Program - proposals for a study of primary production, 1973.

AS/2/11 Carnation Cr. Watershed Studies - problems, procedures and recommendations for obtaining a model for watershed management.

AS/2/12 Babine Watershed Change Program - photos and text for annual report, 1972.

AS/2/13 "Atnarko River Development Proposal" - meeting notes and plans for a spawning channel.

AS/2/14 Kootenay L. Fisheries Research Station - notes and correspondence regarding research.

AS/2/15 Chilko L. - photos and data regarding survival of fry, smolts, etc., 1959.

AS/2/16 Aquaculture - financial and technical submissions, 1974-76.

AS/2/17 Aquaculture Program - development of R and D policy.

AS/2/18 (1)Objectives of salmon research in FRB, 1970; and (2)information re: Professional Institute of PSAC.

AS/2/19 Alaska Workshop - determination of sockeye sub-stocks, 1965.

AS/2/20 Notes for seminar on mate selection behaviour (effects of size and age).

AS/2/21 Misc. reports and briefs re: magnetic pin-tagging and Babine Development Program.

AS/2/22 Report on study of Babine salmon production and on sockeye parasites.

AS/2/23 Daily catch statistics forms used in the 1959 Co-operative Pink Salmon Research Program.

AS/2/24 [No file]

AS/2/25 1959 fishing vessel lists and list of seiners by licence no.

AS/2/26-27 "Spear L. data" - original data from W.E Ricker's study of the fishes of Spear L., Indiana (1944-45, 1947-49). Includes mark recovery data by length class, lengths, weights, length/weight relationships and fishing effort estimates.

AS/2/28 "Fish marking and counting": Fence counts of adult sockeye at Babine fence, 1973, and estimates of the distribution of pink spawners in Kispiox R., 1961.

AS/2/29 Summary of size and timing of Babine smolt runs, 1951-71.

AS/2/30 Bulkley R. proposal re: hydro-electric development, 1961.

AS/3/1 Photos and negatives of Skeena/Babine/Lakelse field operations and specimens collected in those operations (with index).

AS/3/2 General notes on project "Chariot" - 1960 Alaskan expedition (daily diaries).

AS/3/3 Operational plan for "Plowshare", 1960-61 (feasibility of deep sea port in Cape Thompson area, Alaska).

AS/3/4 Index to photo album (album not present).

AS/3/5 Notes and work sheets for Babine tagging program to develop/evaluate racial separation of Fulton/Pinkut sockeye from Babine R. sockeye (using discriminant analysis of length and scale character data), 1968-70.

AS/3/6 Pink mark recovery data from Klemtu, 1967.

AS/3/7 (1)Tagging records and sampling data from Lakelse R. fence (1962) and (2)mortalities from a fry transfer (1970).

AS/3/8 Logs for pin tagging Babine smolts with evaluation of pin tagging machines, 1967.

AS/3/9 "Tests of efficiency of hydraulic sampler for collecting salmon eggs", 1964, and "Evolutionary Biology in Fisheries", 1965.

AS/3/10 Pink salmon "technical sub-committee" and "coordinating committee", 1959-60.

AS/3/11 Misc. reports and notes on salmon (1960's).

AS/3/12 Comparison of sockeye from Babine and non-Babine streams re: growth and tag recoveries.

** AT **

NANAIMO R. ESTUARY STUDIES

YEARS: 1972-76

SIZE: 3 boxes

DESCRIPTION

Record Group AT comes from the Estuarine Pollution ("E.P.") group of the 1970's. The files concern their study of the ecology of the Nanaimo R. estuary. They trawled, seined and trapped fish and obtained zooplankton samples from the estuary and, less intensively, from Georgia Str. and Departure Bay. These files have records of the sets, species compositions of the catches and (for the fish samples) size, scale and stomach contents data. Some oceanographic measurements are present, e.g. salinities, temperatures and conductivities.

HISTORY/SOURCE: J. Sibert, R. Parker and R. LeBrasseur

INDEX TERMS

Species

Pink / Chum / Coho / Chinook / Fish / Plankton / Other

Life Stage

Alevin / Fry / Juvenile / Ocean fish / Age unspecified or non-applicable

Statistical Area

14 (Comox) / 17 (Nanaimo) / 50 (Georgia Str.)

Location

Georgia Str. (50) / Qualicum (Big Qualicum) R. (14) / Departure Bay (17) / Nanaimo R. (17)

Aspect

Abundance / Body size / Body weight / Catch composition / Chemical oceanography / Digestion / Echo surveys / Estuaries / Experimental fishing / Ichthyoplankton / Identification keys / Marine crustaceans / Marine ecology / Marine fish / Marking / Physical oceanography / Production (Biological) / Scale reading (Ages) / Scale reading (Circuli measurements) / Seining / Size distribution / Stomach content / Trap fishing / Trawling / Water depth / Weather conditions / Zooplankton

REGISTER: RECORD GROUP AT

AT/1/1 Sibert's index to the original file titles.

AT/1/2 Key to codes for fish species and stomach contents.

AT/1/3 Scale readings for juvenile chum, chinook and coho caught by two boat trawl (TBT) in Nanaimo R. estuary and Departure Bay (with ages and no. of circuli), 1973.

AT/1/4 Identification of decapod species and species composition of otter trawl samples from Nanaimo R. estuary, 1973.

AT/1/5-6 "E.P. Nanaimo", 1973 - Deck sheets for TBT cruises, with charts of stations, echo-sounder recordings and length frequencies of herring, chum, chinook and stickleback.

AT/1/7-8 "E.P. Nanaimo" - Tally sheets for TBT catches, with set data (including tidal information) and species data, June and July, 1973.

AT/1/9 Species, length and weight data from TBT catches, Nanaimo stations 1-25, 1973.

AT/1/10 Length frequencies of chinook, stickleback, chum, herring, pipefish and river lamprey taken in TBT's from Nanaimo R. estuary, July, 1973.

AT/1/11 Species, length and weight data from TBT catches, 1973.

AT/1/12 Length frequencies (with mean and SD) of herring, chum, chinook and stickleback samples taken in Nanaimo R. estuary - June, 1973.

AT/1/13 Catch tallys for beach seine, purse seine and trawl hauls with set, tide and species data, 1974.

AT/1/14 Water depth, water "condition", salinity and temperature data from Departure Bay - Oct., 1973 to March, 1974.

AT/1/15-20 Deck sheets for fishing in Georgia Str. and Nanaimo R. estuary, with station, gear, depth, weather and catches - April to September, 1974.

AT/1/21-37 Lengths of herring, crab and non-salmon from various Departure Bay stations, 1973-74.

AT/1/38-2/15 Stomach contents of fish taken in Nanaimo R. estuary and Departure Bay - gear, station, species, length, weight, stomach capacity, stomach weight (full and empty), percent digestion and number and size of food categories, 1974.

AT/2/16 Stomach contents of non-salmon from Departure Bay, Jan.-Oct., 1974.

AT/2/17-18 Logs of plankton hauls (no catch data), 1974.

AT/2/19 "E.P. Nanaimo" - depth, salinity, water condition and temperature data, stations 1-4, Jan., 1974.

AT/2/20-26 Trap catches from Nanaimo R. estuary, with (1)length, weight and "yolk" (yes or no) data for pink and chum fry and (2)lengths of various non-salmon spp, 1974.

AT/2/27-33 Species, lengths, weights and stomach contents for trap catches in Nanaimo R. estuary, April-May, 1974.

AT/2/34-48 Weight and length frequencies of chinook, chum, pink, herring and non-salmon (including larval) fishes caught in Nanaimo R. estuary, April-Sept., 1974.

AT/2/49-50 Weights of individual pink and chum fry taken by dip-net from Departure Bay, April-May, 1974.

AT/2/51 Length frequencies of pink, chum, chinook and coho taken in Nanaimo R. estuary, 1974-76.

AT/2/52 Frequencies and statistical summaries of lengths of chinook, chum, pink, coho and non-salmon sampled in the "E.P. Nanaimo" study, by gear and location, April-July, 1974.

AT/2/53-56 Nanaimo R. estuary and Departure Bay fish samples - stomach contents sheets, with gear, station, species, length, weight, stomach capacity, stomach weight (full and empty), percent digestion and number and size of food categories, June-July, 1974.

AT/2/57-58: Marked juvenile chinook that were reared at Big Qualicum hatchery and released in Nanaimo R. estuary in June, 1974:

...2/57 Lengths and weights.

...2/58 Length frequencies.

AT/3/1 Index to "E.P. Nanaimo" studies in 1972 - dates of cruises and topics of investigation.

AT/3/2,5,6,9,12,14,16,18,19,23 Zooplankton catch data, with haul information and quantities by species, July, 1972 to March, 1973.

AT/3/3,4,7,8,10,11,13,15,17,20,21,22,24 Netting in Departure Bay: (1)Deck logs with temperature and salinity data, time and depth of sets and remarks; and (2)length frequencies and stomach contents analysis of herring, pink, chum, coho, chinook and stickleback - August, 1972 to March, 1973.

AT/3/25 No. of circuli in first year zone of scales from chinook, pink, chum, coho and trout samples, with age and location caught, 1972-73.

AT/3/26 Herring scale readings (including data on plus growth), August to October, 1972(?).

AT/3/27 Graphs of temperatures, salinities and conductivities for "E.P. Nanaimo" stations 1-12 - July 27, 1972.

AT/3/28 Set logs for zooplankton hauls, with analysis sheets showing species composition and "number of food organisms", 1972-73.

AT/3/29 Data from (1) salinity study and (2)preliminary productivity study of Nanaimo Flats, 1972(?).

** AW **

STUDIES OF SOUTH COAST ESTUARIES

YEARS: 1972-73, 1975-76

SIZE: 2 boxes

DESCRIPTION

This record group is primarily experimental fishing data from south coast estuaries and sampling data from the catches (particularly catches of juvenile salmon). The sampling information is largely stomach contents data: the species and size composition of the food, its amount and its degree of digestion. Some files have lengths and weights of juvenile salmon. There is also some salinity, water temperature and solar radiation data and, for Alberni Inlet, some plankton biomass and production data.

HISTORY/SOURCE: R. Parker, J. Sibert, B. Kask et al.

INDEX TERMS

Species

Chum / Coho / Chinook / Salmon / Fish / Plankton

Life Stage

Fry / Smolt / Juvenile / Age unspecified or non-applicable

Statistical Area

13 (Quathiaski) / 14 (Comox) / 17 (Nanaimo) / 18 (Cowichan) / 23 (Barkley Sd.) / 28-1 (North Vancouver) / 28-2 (Squamish) / 29 (Fraser R.) / 29-1 (Lower Fraser)

Location

Campbell R. (13) / Oyster R. (14) / Nanaimo R. (17) / Cowichan Bay (18) / Alberni In. (23) / Maplewood (28-1) / Burrard In. (28-1) / Squamish R. (28-2) / Fraser R. (29) / Roberts Bank (29) / Sturgeon Bank (29) / Woodward Is. (29-1)

Aspect

Abundance / Biomass / Body size / Body weight / Catch composition / Digestion / Estuaries / Evolution / Experimental fishing / Life history / Literature reviews / Marine ecology / Marine fish / Population genetics / Production (Biological) / Salinity / Scale reading (Ages) / Scale reading (Circuli measurements) / Seining / Size distribution / Solar radiation / Stomach content / Trawling / Water depth / Water temperature / Weather conditions

REGISTER: RECORD GROUP AW

AW/1/1 Notes on "Life history parameters" and a literature search re: evolution of salmon species ("Evolution, Genetics and Pacific Salmon").

AW/1/2 Estuary Task Force study - file index for species and stomach codes, stomach sample nos. and location of length and weight data.

AW/1/3 Codes for fish species and stomach contents, 1975.

AW/1/4-38 Fraser R. estuary (upper and lower), 1972-73: Stomach contents of fishes, by sample no. and location, with analysis of stomach capacity and degree of digestion.

AW/1/39-51 Logs for purse and beach seine hauls in Nanaimo R. estuary showing date, location, time, temperature, depth and details of catch (quantity and species) - March to August, 1973.

AW/1/52-63 Stomach contents data showing the fish species and length, weight, stomach capacity and stomach weights (full and empty). There are size distributions given for food items in the stomach, some contents are taxonomically identified and there are percent digested estimates. Data from the Nanaimo R. estuary, 1972.

AW/1/64 Lengths and weights of coho, chum and chinook whose stomach contents were sampled - grouped by capture gear (townet, beach or purse seine). Data from Nanaimo R. estuary, 1972.

AW/2/1-75: Stomach contents sampling sheets, giving location, gear, station, species, length, weight, stomach capacity, stomach weight (full and empty), percent of food digested and no. of food types. Samples were taken in 1972(?) from the following areas:

...2/1-9 Oyster R.

...2/10-44 Roberts Bank.

...2/45-74 Sturgeon Banks.

...2/75 Maplewood (in Burrard In.?).

AW/2/76 Nanaimo R. estuary study - salmon scale readings (from slides and impressions), with age and circuli counts, May to July, 1973.

AW/2/77-84: Catches from beach seine, purse seine and tow net hauls, with location, time of day, tide and species composition data. Samples were taken in 1973 from the following locations:

...2/77 "Lower Fraser" (estuary?).

...2/78 "Upper Fraser" (estuary?).

...2/79 Maplewood (in Burrard In.?).

...2/80 Oyster R.

...2/81 Roberts Bank.

...2/82 Sturgeon Banks.

...2/83 "Nanaimo" (R. estuary?).

...2/84 Cowichan Bay.

AW/2/85 Chart showing beach seine, purse seine and tow net stations in Nanaimo R. estuary, 1972-73.

AW/2/86 Data re: occurrence of over-size food categories in stomach contents.

AW/2/87 Estuarine Pollution studies in 1972-73: coding key relating sample nos. with dates and locations (Campbell R., Cowichan Bay, Woodward Is., upper and lower Fraser R. (estuary?), Maplewood, Nanaimo, Oyster R., Sturgeon and Roberts Banks and Squamish).

AW/2/88 Negatives of tables and figures for publication re: biomass and productivity data from "E.P. Alberni" cruises, 1973.

AW/2/89 Pyroheliometer recordings for "E.P. Nanaimo" cruises - June, 1972 to Jan., 1973.

AW/2/90 Field notebook/diary for Estuarine Pollution cruises during which core samples were taken. There are weather condition, salinity and temperature data from several locations, including the Nanaimo estuary and Cowichan Bay, 1975-76.

** AX **

SALMON AND MARINE ECOLOGY DATA FROM THE CENTRAL COAST, ALBERNI IN. AND SQUAMISH R. ESTUARY

YEARS: 1925-67 and 1970-73

SIZE: 16 boxes

DESCRIPTION

AX is a record group from R. Parker with research data from:

1. The Port John (Hooknose Cr.) study. This data is largely from fence operations, tagging and marking, redd sampling, fish sampling, limnological and marine measurements, and experiments on predation and on the effect of salinity on fertilization of chum and pink eggs. The marking and tagging work relates to such things as determining ocean survivals of pinks, the stream life of spawners and the abundance of resident predator fishes.

2. A study on the early sea life and subsequent ocean survival of pinks from the Bella Coola R. system. Some aspects are marking and mark recovery data, stream surveys, data on the incidence of natural marks (missing fins) caused by the ectoparasite Caligus, experiments examining coho predation on pinks and chum, pink orientation experiments, experimental fishing and proximate analysis of the body constituents of pinks.

3. A study assessing the effects of pulp mill pollution in Alberni Inlet. The study has catch and sampling data from experimental seining and trawling; physical, chemical and biological oceanographic data and some data from experiments with juvenile chinook.

4. A marine ecology study of upper Howe Sd./Squamish R. estuary, with oceanographic measurements, plankton data and catch and samplng data from experimental fishing.

5. Miscellaneous sources, e.g. cutthroat trout sizes and ages at Chef Cr., vertical distribution of chinook and coho from troll data, chinook data from Campbell R. and Washington State and various manuscripts.
Table of Contents:

1. Port John: 1/5,26; 3/8-10,13; 7/8,14; 8/4,7-8,17,19-26,28-36; 9/2-11; 10/1-2,16,20; 11/3-4,6,18,23; 12/2.

2. Bella Coola: 1/2-4,6-25; 2/2-15,17-22; 3/2-7,10-13,15-22; 4/2-8,11,15-26,28-30; 5/2-7; 6/2-21; 7/2-13,15-23; 8/2-6,9-16; 10/2-6,13-14,21; 11/1-2,5,7-10,12-15,19,25,27.

3. Alberni In.: 12/1 to 14/29; 15/14 to 16/19.

4. Squamish R.: 15/1-13.

5. Miscellaneous: 2/16; 3/14; 4/9-10,12-14,27; 8/18,27,30; 10/7-12,15,17-19; 11/11,16-17,20-22,24,26; 12/1,3-4.

HISTORY/SOURCE: R. Parker

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Fish / Plankton / Other

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

All B.C. Areas

Location

High Seas / Alaska / Sashin Cr. (Alaska) / Cape Fairweather (Alaska) / Kitoi Bay (Alaska) / Little Port Walter (Alaska) / McClinton Cr. (1) / Dundas Is. (3) / Herman Cr. (4-2) / Bella Bella (7) / Howyet Cr. (7) / Klemtu (7) / Lewall In. (7) / Nalau Pass. (7) / Atnarko R. (8) / Bella Coola R. (8) / Bella Coola system (8) / Burke Chan. (8) / Croyden Bay (8) / Dean Chan. (8) / Fisher Chan. (8) / Fitz Hugh Sd. (8) / Fougner Bay (8) / Hooknose Cr. (8) / Koeye R. (8) / Kwatna (Quatna) R. (8) / Matthew Is. (8) / Menzies Pt. (8) / Namu (8) / Necleetsconnay R. (8) / Nooseseck R. (8) / Nootsum (Nootum) R. (8) / Ocean Falls (8) / Port John (8) / Port John L. (8) / Salloomt (Salloompt) R. (8) / Tally Cr. (8) / Whiskey Bay (8) / Rivers In. (9) / Smith In. (10) / Johnstone Str. (12-13) / Campbell R. (13) / Morrison Cr. (14) / Chef (Cook) Cr. (14) / Skwawka R. (16) / Deserted R. (16) / Departure Bay (17) / W. coast of Vancouver Is. (51-2) / Alberni In. (23) / Hohm Is. (23) / Somass R. (23) / Port Alberni / Squamish R. (28-2) / Vancouver / Fraser system (29) / Fraser R. (29) / Minter Cr. (Wash.) / Washington State / Puget Sd. (Wash.)

Aspect

Abundance / Anaesthesia / Bacteria / Biochemical composition / Biomass / Body size / Body weight / Calibration / Carbon 14 / Catch composition / Census / Coastal fisheries / Computer programs / Dyes / Ectoparasites / Egg retention / Environmental effects / Escapement / Estuaries / Experimental culture / Experimental fishing / Feasibility / Fecundity / Fins / Fish catch statistics / Food availability / Freshwater fish / Gear selectivity / Growth / Hatching / Horizontal distribution / Ichthyoplankton / Identification keys / Jacks / Length-weight relationships / Lesions / Lethal limits / Light effects / Limnological data / Marking / Methodology / Mortality / Oceanographic data / Orientation behaviour / Plankton / Pollution data / Population number / Precipitation (Atmospheric) / Predation / Primary production / Redd sampling / Regression analysis / River discharge / Salinity tolerance / Samplers / Scale reading (Circuli measurements) / Scales / Scale impression cards / Sex ratio / Size distribution / Spawning grounds / Spawning seasons / Sport fishing statistics / Starvation / Stomach content / Survival / Tagging / Vertical distribution / Weather conditions / Weirs

REGISTER: RECORD GROUP AX

AX/1/1 Parker's index to files AX/1/2-26.

AX/1/2 "Egg to fry survival": Daily observations of pinks, Whiskey Bay, Port John and Bella Coola, 1961 and 1963.

AX/1/3 "Whiskey Bay marking" of juvenile pinks - growth, percent mortality data and marking records, Whiskey Bay and Nalau Pass., 1963.

AX/1/4 "Nalau Pass marking": Percent mortalities shown for pinks, 1963.

AX/1/5 Pink and chum "Redd Diggings, Port John", 1963.

AX/1/6 "Type I" summaries of parasite sampling data for pinks and chum (nos. infected, nos. of loose copepods and frequency of predator scars and deformities), 1963.

AX/1/7 Length frequencies recorded during marking of pink and chum fry, Fitz Hugh Sd., 1963.

AX/1/8 "Live length frequencies" of pink fry - from length and weight samples and marking samples, Whiskey Bay, 1963.

AX/1/9 Pink lengths and weights (correcting for stomach weight), Whiskey Bay and Nalau Pass., 1963.

AX/1/10 (1)"Stomach analyses (1963)" for sticklebacks, pinks and chum; (2)"Copepod damages (1962)" to pink fry; and (3)lengths and weights of proximate (body constituent analysis) samples. Eggs, fry and adults from Whiskey Bay and Nalau Pass., 1962-63.

AX/1/11 Copepod infections in pink fry, 1963.

AX/1/12 Pink and chum fry: Actual copepod damage to fins, length frequencies and mark recoveries, 1963.

AX/1/13 "Predator experiments" I and II using coho predator with marked and unmarked pink fry (testing hypothesis that predators prefer marked fish), 1963.

AX/1/14 Examination of scales from pink, coho and chum fry. File includes scale impression cards, circuli measurements and lengths of fry when scales form, 1963.

AX/1/15 Graphed data from pink fry orientation experiments, Whiskey Bay, 1963.

AX/1/16 Charts of mark recoveries, also showing the distribution of juvenile pink samples, Area 8, 1963.

AX/1/17 Stomach analyses from trawl catches of predators, Burke Chan., 1964.

AX/1/18 "Original sightings, deck survey charts": Coho and pink, fry and adult, Burke Chan., 1963.

AX/1/19 Log book for M.V. "Noctiluca", 1963-65.

AX/1/20-21 All salmon spp. and steelhead - adult mark recoveries from Vancouver and Namu landings (looking for marked pinks), 1964.

AX/1/22 Commercial catches of pinks in Areas 6-9, 1964.

AX/1/23 Summary of mark recoveries: 1964 recoveries of 1962 brood year marks, including (1)release data and (2)population estimates of spawners. Areas 7 and 8, 1963-64.

AX/1/24 Adult mark recoveries from Bella Coola streams, 1964.

AX/1/25 Recoveries of adult marked pinks from Nootam, Quatna and Koeye Rs., 1964.

AX/1/26 Pink and chum at Hooknose Cr. - average egg to fry survivals over a 14 year period, 1947-61.

AX/2/1 Parker's index to files AX/2/2-21.

AX/2/2-3 Tests to assess the quality of fry marking (tanks 1-14), Bella Coola, 1965.

AX/2/4 Fry recoveries including "marking summaries", Whiskey Bay, 1964.

AX/2/5 Bella Coola "marking stock" (daily growth rates), 1965.

AX/2/6 "Redd diggings (Bella Coola), 1965": Pink and chum egg and alevin studies.

AX/2/7 Mark recovery sampling of fry in the Bella Coola area in 1965, showing the catches of pink and chum fry and the numbers of marked pinks (by location).

AX/2/8 Charts of mark recovery areas and sampling locations in Burke Chan., Fisher Chan. and Fitz Hugh Sd., 1965.

AX/2/9 "Live length frequencies": lengths of marked and unmarked pink fry, 1965.

AX/2/10 (1)Marking and mark recovery records, (2)live length frequencies and (3)pink fry sampling records at the Bella Coola R. trap. Bella Coola area, 1965.

AX/2/11 Two boat trawl experiments and catch data for pink, chum, coho, herring and stickleback. Nalau Pass., 1965.

AX/2/12 Predator experiment involving coho smolts and pink fry, conducted in aquaria, 1965.

AX/2/13 Working charts of sampling locations - recoveries of marked pink fry, 1965.

AX/2/14 Pink fry stomach weights and "percent of food", corresponding in time and location to master samples, 1965.

AX/2/15 Two boat trawl trip in Burke Chan., 1965: (1)Pacific Oceanographic Group forms with temperature and salinometer data; (2)charts of horizontal plankton tows showing station positions; and (3) BT and plankton logs.

AX/2/16 (1)Adult and juvenile pinks data from a Fish and Wildlife survey in Alaska; and (2)lengths of juvenile chum and pink near Dundas Is., 1965.

AX/2/17 "Samples lost from freezer" including adipose mark recoveries, 1965.

AX/2/18 Stomach analyses of coho smolts, Bella Coola, 1965.

AX/2/19 Log book of M.V. "Noctiluca" operating in the Bella Coola area, 1965-67.

AX/2/20 Pink mark recoveries including length, weight and sex data, Namu landings, Area 8, 1966.

AX/2/21 Pink mark recoveries from cannery samples (Klemtu is mentioned), Areas 6-9, 1966.

AX/3/1 Parker's index to files AX/3/2-22.

AX/3/2 Mark recoveries of adult pinks on the upper and lower Atnarko R., 1966.

AX/3/3 1966 pink data: (1)stream surveys of upper and lower Atnarko and Bella Coola Rs.; (2)notes on the early sea life of salmon; (3) pink surveys in Areas 7-8; and (4)mark recovery data sheets from the Salloompt R. and other Rs.

AX/3/4 Records of adult pink tagging on the lower Atnarko R., with daily summary sheets, 1966.

AX/3/5 Pink spawning escapements and mark recovery observations for Quatna, Bella Coola and Koeye Rs., Areas 7 and 8, 1966.

AX/3/6 Estimates of escapements and catches of marked pinks (raw data), Areas 6-8, 1966.

AX/3/7 "Field log book": Entrance of pink fry into Bella Coola estuary, 1965.

AX/3/8-13: Field records, diary log books and scale samples:

...3/8 Hooknose Cr., 1959.

...3/9 Hooknose Cr. (4 books), 1960-63.

...3/10 Bella Coola and Hooknose Cr. - pink, chum and coho tagging and recovery books (5 books), 1963.

...3/11 Atnarko R. - tag recovery books (5 books), 1964.

...3/12 Bella Coola - survival tests and records of recoveries (4 books), 1965-66.

...3/13 Bella Coola and Hooknose Cr. - fry data (3 books), 1966-67.

AX/3/14 Notes from oceanographic cruises by "Caligus" off the W. coast of Vancouver Is., 1970.

AX/3/15 Data sheets for quality control of pin-tagging of pink fry, Bella Coola, 1966.

AX/3/16 Data sheets for quality control of adipose clipping of pink fry, Bella Coola, 1966.

AX/3/17 Fry "tag and fin clip counts", 1966.

AX/3/18 (1)Marking apparatus: A coded wire identification system for macro-organisms. (2)A paper on "Results of preliminary testing of the application of micro-magnetic tags to pink salmon fry". Bella Coola and Burke Chan., 1966.

AX/3/19 Length frequency data from juvenile pink, chum and coho in aquaria, 1966-67.

AX/3/20 Analysis of frozen pink fry samples from the Bella Coola area - weights and moisture, lipid and protein contents, 1966.

AX/3/21 Recoveries of marked pink fry (raw data), 1966.

AX/3/22 "Diurnal series no. 1-4": Length/weight analysis of pink fry (using dry and wet weighing methods) and stomach analysis records, Fougner Bay, 1966.

AX/4/1 Parker's index for files AX/4/2-22

AX/4/2 Aquarium experiments measuring size selectivity of coho predation on pink fry (records of lengths before and after(?) predation). Experiments 1 and 2, 1967.

AX/4/3 Computer program to analyze predation data.

AX/4/4 Coho predation on sandlance: data on size selection in tanks, 1967.

AX/4/5 Coho predation on pink fry: data on marked and unmarked selectivity in aquaria, 1966.

AX/4/6 Orientation data from run sample tests and holding pen experiments using pink fry, Burke Chan., 1966 (M. Healey).

AX/4/7 Experiment involving the conditioning of pink fry to swim toward a light for food, 1966 (M. Healey).

AX/4/8 1966 pink data: (1)Field notes of fry marking; (2)mortality records of tagged fry in holding pens; and (3)pink escapement/mark recovery data from Areas 7 and 8 streams.

AX/4/9 Computer program to convert food compositions to percentages.

AX/4/10 Computer program to produce manuscript printout of data.

AX/4/11 Computer program to produce printouts of stomach contents, expressed as percentages of body weight (for juvenile pink data), 1966.

AX/4/12-14: Simple linear regressions:

...4/12 Computer program to punch cards.

...4/13 Regression analysis of lengths and body weights.

...4/14 Computer program to print out values used in regressions.

AX/4/15 Recoveries of marked pinks from the Atnarko R. and the Namu and Klemtu canneries, 1967.

AX/4/16 Notes regarding the predator selectivity experiments using coho smolts and pink fry, 1966.

AX/4/17 Manuscript: "Observations on zooplankton in the surface waters of Burke Chan. and seaward channels during the time of residence of juvenile Bella Coola pink salmon in 1965".

AX/4/18 Estimates of pink and chinook escapements to Atnarko R., 1963-67.

AX/4/19 Plankton index/field log (Pacific Oceanographic Group), 1967.

AX/4/20 Manuscript: "Concerning Predator Selectivity for Prey" (initial and terminal length frequency statistics for predator-prey experiments), Burke Chan., 1967.

AX/4/21 "Pink-Coho model" summary of observations on juvenile coho diet, with length frequencies of juvenile coho in Burke Chan. (1966) and pink fry in the Bella Coola area (1965).

AX/4/22 Charts showing pink fry observations in Burke Chan., 1967.

AX/4/23 (1)Fry scouting journal for Bella Coola and vicinity; and (2)the environmental food supply and its effect on the growth rate of juvenile pink in Burke Chan. and Fitz Hugh Sd. (paper detailing the investigation), 1966.

AX/4/24 Spring-time observations of pink fry in the Bella Coola area, 1967.

AX/4/25 Data from surveys of pink(?) fry in the Atnarko R., 1967.

AX/4/26 (1)Tag recoveries of adult pinks in Areas 6-8 from tagging off the WCVI and on the High Seas (1960-67); and (2)recovery data from the 1959 pink tagging program in Johnstone Str.

AX/4/27 (1)Computer printout of lengths, weights, ages and scale data from cutthroat trout at Chef Cr. (1966); and (2)a computer program listing.

AX/4/28 Predator selectivity experiment with pink and chum fry - length frequencies of all fish (in aquaria), 1967.

AX/4/29 Angling catches of rainbow and cutthroat trout and Dolly Varden, including stomach contents data, Bella Coola, 1967.

AX/4/30 Original field notes on mark recoveries from pink carcass pitches, Atnarko R., 1967.

AX/5/1 Parker's index for files AX/5/2-7.

AX/5/2-3: Pink fry marking data:

...5/2 Whiskey Bay, 1964.

...5/3 Fougner Bay, 1964, and Whiskey Bay and Nalau Pass, 1963.

AX/5/4 Sampling for marked pink fry in Burke Chan., 1964.

AX/5/5 Length frequencies of marked pink fry (adipose-right ventral "ARV" clips) during marking and at release, Whiskey Bay, 1964.

AX/5/6 Length frequencies of marked pink fry (adipose-left ventral "ALV" clips) at release, Fougner Bay, 1964.

AX/5/7 Length and weight frequencies of pink and chum fry in marking experiments, 1964 and 1966.

AX/6/1 Parker's index for files AX/6/2-21.

AX/6/2 (1)ARV mark recoveries by markers at Fougner Bay in 1964 (testing the validity of 1963 brood year marks), with a discussion of errors in marking procedures; and (2)length frequencies of juvenile pink and chum in the Burke Chan./Menzies Pt. area in 1963, with notations of infected and deformed fish.

AX/6/3 Lengths and weights at marking and at recovery of ARV-marked pink fry, with days-out data and weight/time regression. Growth calculations are for a 20 day period. Bella Coola, 1964.

AX/6/4 ARV marks from "regeneration experiments" (holding of pink fry to check for regeneration of fin clips), 1964.

AX/6/5 Distribution of Bella Coola pink fry, including some mark recovery and length frequency data, 1964.

AX/6/6 Charted movements of the marked pink fry population, 1964.

AX/6/7 Lengths and weights from a starvation experiment, Whiskey Bay, 1964.

AX/6/8 Stomach contents data from predators in "Investigator No. 1" catches, 1964.

AX/6/9 Comparison of stomach contents of pink fry with plankton samples and with observations made in the sampling area. There are also inshore-offshore comparisons. Fitz Hugh Sd. and elsewhere in Area 8, 1964.

AX/6/10 Two boat trawl data (catches include pink fry), 1963-64.

AX/6/11 Biochemical proximate (body constituents) analysis of pink fry, Bella Coola, 1964.

AX/6/12 Index to, and data from, 1964 plankton samples (Pacific Oceanographic Group).

AX/6/13 Microscope slides with pink fry scales, scale reading data (no. of circuli) and fork lengths, 1964.

AX/6/14 (1)Experiment to assess transfer of the parasite Caligus between pinks, herring and stickleback (Whiskey and Croyden Bays, 1964); and (2)mortality records of marked pink fry in aquarium, 1964.

AX/6/16 Notes on experimental methods of anaesthetizing fish using 2-phenoxyethanol and MS 222, 1963.

AX/6/17 Summaries of marked pink recoveries from Namu landings, Areas 6-9 and 12, 1965.

AX/6/18 Marked pink recovery data from Namu (3 files including duplicates), Area 8, 1963-65.

AX/6/19 (1)Pink catch statistics from Areas 6-9 (1965); and (2)daily seine and gillnet catches of all spp. from Bella Coola, Dean Chan. and Fitz Hugh Sd., Area 8 (1961-65).

AX/6/20 Worksheets showing recoveries of marked pinks, Namu, 1965.

AX/6/21 Atnarko R. pinks - mark recoveries and tagging data with calculation of escapements from tag returns. File also has computer cards with mark recoveries. 1965.

AX/7/1 Parker's index to files AX/7/2-23.

AX/7/2 Daily summary sheets of pink escapement estimates and tagging records, Salloomt R., 1965.

AX/7/3 Recoveries of marked adult pinks, Salloomt R., 1965.

AX/7/4 Recoveries of marked adult pinks from other streams (Kwatna, Nooseseck (Green Bay) and Necleetsconnay Rs.), 1965.

AX/7/5 (1)Length and weight frequencies of marked and unmarked pink and chum, including field notes; and (2)"Burke Chan. project (early sea life of salmon)", 1964.

AX/7/6 (1)Marking summary of juvenile pinks and chum; and (2)counts of other species in catches (coho, sockeye and non-salmon), Fougner Bay and Lewall In., 1962.

AX/7/7 Sampling index for pink and chum catches in locations 1-49, Bella Coola, 1962.

AX/7/8 (1)Lengths and weights of Bella Coola pinks (adults) and (2)an analysis of covariance of lengths and weights of pink and chum fry from Port John in 1961.

AX/7/9 Length frequencies of pink and chum fry from locations in Area 8 (with notes of predator and parasite damage and fin damage), 1962.

AX/7/10 Copepod infections on pink fry, including daily distribution of parasites, 1962.

AX/7/11 Records of copepod fin damage on pink fry, by fin and time of year, Area 8, 1962.

AX/7/12 Stomach capacity data for pinks, chum, coho, sandfish, ling cod and herring, Fitz Hugh Sd., 1962.

AX/7/13 Marker's field notes for pink and chum fry, Fougner Bay and Lewall In., 1962.

AX/7/14 Field logs of daily operations, Port John and Bella Bella, 1960 and 1962.

AX/7/15 Data on quality of mark recovery, Areas 7 and 8, 1963.

AX/7/16 Sampling of Area 7 and 8 pink catches from Vancouver landings, 1963.

AX/7/17 Summaries of pink mark recoveries and numbers in landings, Areas 7 and 8, 1961-63.

AX/7/18 Hypural and fork lengths of adult pinks, Bella Coola, 1963.

AX/7/19 Hypural and fork lengths and sex composition of adult pinks, Bella Coola, 1963.

AX/7/20 Daily catch sheets for adult pinks, Areas 7 and 8, 1963.

AX/7/21 Mark and tag recovery data for adult pinks, Atnarko R., 1963.

AX/7/22 Summaries of tagging adult pinks, including charts and data on fork length and sex, Atnarko and Bella Coola Rs., 1963.

AX/7/23 Estimated density of pink spawners in the Atnarko R., 1963.

AX/8/1 Parker's index to files AX/8/2-36.

AX/8/2 Summary of adult pink tagging and mark recovery data, Bella Coola streams, 1963.

AX/8/3 Estimation of sea mortality rates for the 1961 brood-year pink salmon of the Bella Coola area, 1961-63.

AX/8/4 Summary notes on observations of juvenile pinks in the Fitz Hugh Sd. area, including field notes of the 1961 spring season at Port John, 1961-62.

AX/8/5 Quality of marks on pink and chum fry, 1961.

AX/8/6 Raw data from saltwater marking of pink, chum and coho, Port John, 1961.

AX/8/7 Lengths and weights of chum fry from Port John fence samples, 1961.

AX/8/8 Lengths and weights of pink fry from Port John fence samples, 1961.

AX/8/9 Lengths and weights of chum and pink fry from Matthew Is., 1961.

AX/8/10 Copepod damages on pink and chum fry, Area 8, 1961.

AX/8/11 Stomach analysis data and length/weight regressions for pink and chum fry, Fitz Hugh Sd., 1961.

AX/8/12 Fork lengths, scale data and sex composition of juvenile pink and chum, Nalau Pass. and Fitz Hugh Sd., 1961.

AX/8/13 Percent length frequency graphs for pink fry, Fitz Hugh Sd., 1961.

AX/8/14 Mark recoveries from Areas 6-8 landings of pinks,1962.

AX/8/15 Recoveries of marked adult pinks by week and location, Area 8, 1962.

AX/8/16 Experiment re: predation on eggs and marked pink fry 1962.

AX/8/17 Index to the field books of the 1949-62 Port John (Hooknose Cr.) operations (coho, chum and limnology studies are particularly mentioned).

AX/8/18 (1)List of the type of marks used by Washington State on chinook in 1947-49 period; and (2)sampling data from Campbell R. (chinook?).

AX/8/19 Data from sampling sockeye, chum and pink redds (nos. of live and dead eggs and alevins), Tally and Hooknose Crs., 59-62.

AX/8/20 General information on methods of collecting eggs and juveniles of chum, sockeye and other fish, Hooknose Cr., 1950-57.

AX/8/21 Fence counts of adult chum at Hooknose and Tally Crs., 1947-62.

AX/8/22 Abundance estimates/counts of juvenile and adult chum and coho, with dates of 50% migration, Hooknose Cr. and Howyet R., 1957.

AX/8/23 Hooknose Cr. chum: Sex composition, nos. unspawned, egg retention and deposition, fry survival, predation predictions and life expectancy of spawners, 1953-62.

AX/8/24 Counts of pink spawners in Hooknose Cr. (1938-46) and Howyet R. (1952-60).

AX/8/25 Life expectancy studies of pink spawners, with pink tagging data and length frequencies of pink and chum spawners, Hooknose Cr., 1952-60.

AX/8/26 (1)Coho fecundities and lengths, Port John, 1950-62; and (2)survival of coho fry planted above the fence on Minter Cr. (Wash.), 1937-50.

AX/8/27 Annual commercial catches of chum, Areas 7 and 8, 1930-48.

AX/8/28 Length frequencies and age composition of adult sockeye, Port John and Atnarko R., 1949-58.

AX/8/29 Length frequencies, age compositions and fecundities of chum, Hooknose Cr. and Smith and Rivers Inlets, 1947-49.

AX/8/30 (1)Procedures and results from an experiment to determine the effect of salinity on fertilization rates/mortality of pink eggs, Morrison Cr., 1945; (2)data evaluating dye marking of pink and chum fry and sockeye smolts and release and recovery data of these dyed fish to determine predation rates, Hooknose Cr., 1960; (3)abundance estimates of sockeye, coho, pink and chum spawners from walking Hooknose and Tally Crs., 1959; (4)stream survey data from the 1959 pink tagging program - (a)Skwawka R. (nos. live/dead, sex composition, tagging and tag recovery data and population estimates using tag recoveries), (b)Deserted R. (nos. of dead), and (c)tag recovery data by agency (FRB, IPSFC and WDF) for streams from Johnstone Str. to Puget Sd.; (5)returns per pink spawner compared to precipitation (central coast, 1928-45) and to Fraser R. discharge (Fraser pinks, 1925-47); (6)annual catches of pinks in Areas 7-8, 1930-48; (7)ocean survival of pinks (% of marked pinks recovered) for marking years 1951-54, Old Tom Cr. (unknown location) and Herman Cr.; (8)pink data from Sashin Cr. (Alaska) - annual fence counts, run timing, potential egg depositions, number of fry and egg to fry survivals, 1934-53; (9)average body length of female pink spawners vs. run timing - based on fence data from Snake Cr. (1930-33, unknown location), McClinton Cr. fence (1930-36) and Sashin Cr. (1934-38, 1942 and 1948-49); and (10)weekly count totals of pink fry through the McClinton Cr. fence, 1931-41.

AX/8/31 Daily fence counts and count summaries for adult sockeye, Hooknose Cr., 1947-66.

AX/8/32 Records of marking chum fry, Hooknose Cr., 1961.

AX/8/33 Hooknose Cr. chum, 1947-59: (1)Survival time of spawners; (2)adult returns from fry outputs; and (3)length frequencies of adults.

AX/8/34 Pink and chum fry data from Hooknose Cr., 1952: (1)Nos. of fry in a fence trap, compared to the nos. predicted by a model; and (2)horizontal distribution of fry on fence.

AX/8/35 Summary of fecundity/length relationship for chum, Port John, 1947-57.

AX/8/36 Limnological data (e.g. plankton and bottom fauna) for Port John L., 1949-51.

AX/9/1 Parker's index for field books (AX/9/2-11).

AX/9/2 Precipitation records for Port John and Ocean Falls, 1947-59.

AX/9/3 Sculpin predation on pink and chum fry, with data on lengths, sex and stomach contents of sculpins, Hooknose Cr., 1957-60.

AX/9/4 Daily fence counts of sculpins at Hooknose and Tally Crs., 1948-65.

AX/9/5 Counts of marked and unmarked sculpins, Hooknose Cr., 1954-58.

AX/9/6 Catches in each section of the Hooknose Cr. fence - pink and chum fry, 1952-53, and coho smolts, 1954.

AX/9/7 Thread tagging experiments using pink and chum fry - information includes data on stomach contents of predators (to assess tagging mortality), Port John, 1948-61.

AX/9/8 Fence counts of coho fry and smolts, Tally Cr., 1949-65.

AX/9/9 (1)Lengths and weights of coho jacks, Hooknose Cr., 1961, and (2)lengths, weights and stomach contents of coho smolts penned with pink and chum fry (predation experiments), Hooknose Cr., 1950 and 1956.

AX/9/10 Daily fence counts, including records of marked coho fry and smolts, Hooknose Cr., 1948-63.

AX/9/11 Fourteen annual field books from operations at Tally and Hooknose Crs., 1949-62: (1)Fecundities and egg retentions; (2)large and jack spawner counts and dead-unspawned counts; (3)tagging and recovery data; (4)predation data (stomach contents); (5)cannery landings; (6)cutthroat and Dolly Varden population survey; (7)diary (1949 only); and (8)spawner survival times. Species include sockeye, pink, coho, chum, Dolly Varden, cutthroat trout and sculpins.

AX/10/1 Four field books with data from Port John L. and Hooknose and Tally Crs., 1950-51: Fecundities, spawner counts, analysis of gillnet catches, limnological data, mark recovery summaries and population dynamics of sculpins. Most of the data is on pink, coho, chum, sockeye and Dolly Varden.

AX/10/2 Juvenile pink and chum sampling including length frequencies of marked and unmarked fish and growth calculations - Port John, Matthew Is. and Fitz Hugh Sd., 1961.

AX/10/3 Recoveries of marked adult pinks, Areas 6-12, 1962.

AX/10/4 (1)Recoveries of marked adult pinks, 1963; and (2)a MS reporting on proximate analyses ("Changes in chemical composition of central B.C. pink salmon during early sea life in 1963-64."), Area 8.

AX/10/5 Lengths and weights of pink fry in proximate analysis samples, Whiskey Bay, 1963.

AX/10/6 Data from recoveries of marked adult pinks, including fork and hypural lengths ("Selectivity of a fishery, 1962-65"), Bella Coola area, 1962-64.

AX/10/7 Rough draft re: sockeye length/weight relationships.

AX/10/8 Paper by A. Walker describing a FORTRAN program re: "Exploitation of mixtures of a stock", 1966.

AX/10/9 Paper: "Proposed Oceanic-Coastal Project".

AX/10/10 "Investigation of B.C. chum salmon" (a paper by F. Neave).

AX/10/11 Paper: "Under what condition does a stock weight grow?"

AX/10/12 Paper: "Selectivity of fisheries for male sockeye".

AX/10/13 "Early Sea Life of Salmon", a paper on pink fry and adults, Bella Coola area.

AX/10/14 Photo of "A.P. Knight".

AX/10/15 Paper: "Estimation of a biological population which is subject to a biased mortality", by E. Vaughn (Alaskan research).

AX/10/16 Lengths and lipid contents of sockeye smolts, Port John, 1960.

AX/10/17 Ocean survivals of pinks, Little Port Walter, Alaska, 1940-59.

AX/10/18 Correspondence re: population estimates (between E. Vaughn and B. Parker).

AX/10/19 Notes on preferred depths of chinook and coho based on trolling off Cape Fairweather, Alaska, 1957.

AX/10/20 Pink fecundities and fecundity/fork length regressions of pink and sockeye, Port John, 1950-60.

AX/10/21 Lengths and weights of marked and unmarked pink fry in Fitz Hugh Sd. (1962-63) for growth analysis, with comparative pink and chum fry data from Departure Bay (1948) and US INPFC tagging data to estimate ocean growth.

AX/11/1 Lengths and weights of pink and chum juveniles, Fitz Hugh Sd., 1961.

AX/11/2 Expectations from 1962 pink marking ("1962 Mark Recoveries"), Area 8 fry and adults, 1961-62.

AX/11/3 Ocean temperature and salinity records at Port John, 1961.

AX/11/4 Lengths and weights of fence-caught sockeye smolts, Hooknose Cr., 1961.

AX/11/5 Port John experiments, 1962: (1)Lack of oxygen in sample buckets and (2)predation on pink fry by various predators (sandlance and chum fry also mentioned).

AX/11/6 Pink and chum egg to adult survivals based on marking data, Hooknose Cr., 1947-65.

AX/11/7-8 Weekly mark recoveries in cannery landings of pinks, sub-areas of Area 8, 1962.

AX/11/9 Pink catches (from cannery records), 1962.

AX/11/10 Adult pink sampling data, 1962.

AX/11/11 Oceanographic papers.

AX/11/12 Papers on "Marking by fin amputation" and "Marine mortality". Problems of estimating mortality rate and sea mortality.

AX/11/13 Paper: "Some approaches to the study of ocean mortality of pink and chum".

AX/11/14 Proposal for growth study (paper on environmental factors), 1960.

AX/11/15 Paper: "Marine mortality schedules of pink salmon of the Bella Coola R."

AX/11/16 Lab report for experiment 2: "Comparative toxicity of various Rotenone emulsives for use as fish toxicants", 1956.

AX/11/17 Paper on length/weight relatinships of sockeye.

AX/11/18 Log book for the "Noctiluca", operating largely in the Port John and Bella Bella area, 1959-60.

AX/11/19 "1961 Bella Coola brood year MS" - juvenile and adult pink data. Adult data includes 1963 mark recoveries, sex and length data and catch estimates [illegible] Area 8, 1961-63.

AX/11/20 "Marine growth of western Alaskan red salmon", 1962.

AX/11/21 Paper: "The effects of formalin on length and weight of fish" (sockeye, pink and chum fry, fingerling and adults), 1961.

AX/11/22 Paper: "Tag failure associated with a net fishery as a source of experimental error."

AX/11/23 "The estimation of sea mortality rates for the 1960 brood year Hooknose Cr. pinks", 1960-62.

AX/11/24 Paper: "A concept of growth in fishes".

AX/11/25 Paper and raw data: "The relationship between length and weight in juvenile pink salmon", Whiskey Bay and Fitz Hugh Sd., 1963.

AX/11/26 Paper: "Two proposed methods of estimating animal populations."

AX/11/27 Rough draft with raw data: "Estimations of ocean mortality rates for Pacific salmon" (sockeye, pink and chum).

AX/12/1 Paper: "Ocean mortality and growth of sockeye."

AX/12/2 Rough draft with raw data and revisions: "Estimates of sea mortality rates, 1960 brood year", Hooknose Cr. pinks, 1960-62.

AX/12/3 Statistical analysis assessing the relative importance of genetic and environmental effects on lengths and weights of sockeye smolts, Kitoi Bay, Alaska, 1960.

AX/12/4 "Growth rate in relation to size as shown in steelhead trout" (Parker and Larkin).

AX/12/5 Parker's index to files AX/12/6-28 (giving dates, station no. and file no.) and stomach analysis data for the Alberni In. estuarine pollution study (1971).

AX/12/6-13/9(except 12/15, 12/20, 13/1 and 13/4): Alberni In. estuarine pollution study, 1971 - experimental fishing records showing catches (largely of salmon and herring), stomach analyses, lengths and length frequencies:

...12/6 Fish sampling, station A.

...12/18,19,21 Seining, station A (May 26-28).

...13/5 Seining, station A (June 21).

...12/7-13 Seining, stations 1-5 (April 27-28).

...13/7-9 Seining, stations 1,2,C and 4-8, (June 28-29).

...12/16,17,22-24 Gillnetting, station A (May 20-June 4).

...12/27 Gillnetting, station A (June 7,14,15).

...13/6 Gillnetting, station A (June 22-23).

...12/25 Two boat trawl (TBT), June 2 (nos. 1-5).

...12/26 TBT, June 4 (nos. 1-3).

...12/28,13/2,3 TBT, June 14-16.

...12/14 Weights of ratfish from "deep net" haul at station A, May 12.

AX/12/15,20 and 13/4,10 Alberni In. estuarine pollution study, 1971 - length frequencies and stomach content analyses of chinook held on the "Velella", May 20 and 27, June 16 and July 20.

AX/13/1 Parker's index to files 13/2-15.

AX/13/11-15: Alberni In. estuarine pollution study, 1971 - set and catch data from zooplankton hauls:

...13/11 Station A, April 29 (vertical hauls).

...13/12 Station A, May, 6.

...13/13 Stations 1-7, June 9 (vertical scor).

...13/14 Stations 1-2, Aug. 12.

...13/15 Stations 1-8, Aug. 17-18.

AX/14/1-29: Alberni In. estuarine pollution study, 1971 (cont'd):

...14/1 Parker's index to files AX/14/2-29.

...14/2 Test of the Beckman salinometer, April 23.

...14/3 Check of light equipment, May 13.

...14/4 Total tracings from pyroheliometer.

...14/5 Spectrophotometer KME.

...14/6 Light readings (May 13) and current profiles, (July 7-8).

...14/7 Water chemistry, June 24.

...14/8 Account of a Carbon 14 primary production experiment, with station data and conclusions.

...14/9 July 21-22 cruise report, with current profiles by depth and station.

...14/10 Dissolved oxygen records for the "Alpulp" to Hohm Is. area, 1970-71.

...14/11 "Caligus" log.

...14/12 Graphs of Somass R. flows, 1971-72.

...14/13 Aug. 10 cruise report with water chemistry data by station.

...14/14 Summary of summer concentrations of nitrate, nitrite and phosphate by stations and depths.

...14/15 (1)Tables, figures, rough drafts and methodology notes for a report on quantification of the vertical and horizontal distribution of bacteria in Alberni In.; and (2)records of pulp mill effluent discharges.

...14/16 Photo negatives for a Tech. Rep. on zooplankton.

...14/17 Cruise reports.

...14/18 Rough draft concerning the feeding of herring on juvenile chinook salmon.

...14/19 Readings of salmon and herring scales.

...14/20 Identification of insects in stomachs of chinook.

...14/21 Report on the stomach contents of chinook in the Alberni harbour area.

...14/22 Index to data files showing location, station, time and type of fish sampled.

...14/23-25 Bacteria data from cruises B1 and B2 (May 11 and 19-20), B3 (May 26) and B4 (August 25).

...14/26 Procedure for obtaining oxygen concentrations at depth, using "Parker's pump".

...14/27 Oxygen concentrations by depth and location (from pump samples).

...14/28 Bathykimograph calibrations.

...14/29 Manuscript rough drafts and data on vertical distribution of fish in Alberni harbour and Inlet.

AX/15/1 Parker's index codes for files AX/15/2-20.

AX/15/2-13: Squamish estuary study, 1972:

...15/2-5 Data sheets showing oceanographic data, zooplankton and fish catches and stomach contents analyses for April, May and June.

...15/6 Age composition of herring.

...15/7 Salmon scale readings.

...15/8 April 26-27: (1)Species compositions (herring, flounder, chum, pink and stickleback) and lengths, weights and stomach contents data from seine catches; and (2)species composition of zooplankton catches.

...15/9 Data from April to July on fish and zooplankton species compositions in the estuary, on vertical distribution of zooplankton and on food of various fish species. Also, measurements of salinity, conductivity and temperature.

...15/10-11 Density of seawater by depth from temperature and salinity data.

...15/12 Graphs showing biomass of larvae, fish eggs and copepods.

AX/15/13 Rough drafts of progress reports.

AX/15/14-16/19: Alberni In. estuarine pollution study, 1973:

...15/14 Progress reports 1-4.

...15/15-16 Feasibility of using pump samples to get nutrient and oxygen data and records of the data so obtained, Mar. 7-9 and 13.

...15/17-20 Chemical data with field sheets: March 20-22, April 17, May 16 and July 12.

...16/1 Parker's index to files AX/16/2-19.

...16/2 Deck sheets, April 4-12.

...16/3 Zooplankton counts, April 4-12.

...16/4 Details of plankton tows with sample data, May 1-4.

...16/5 Data on zooplankton hauls and catches, May 1-4.

...16/6 Deck sheets, May 22.

...16/7 Data on zooplankton hauls and catches, May 22-25.

...16/8 Field sheets for zooplankton hauls, July 13-15.

...16/9 Data on zooplankton hauls and catches, July 13-15.

...16/10 Phytoplankton counts in the "pond" at Port Alberni.

...16/11 Light data, April 19.

...16/15-17 MS tabulations of water chemistry data for April 17, May 15 and July 12.

...16/18 Rough draft of a paper on water chemistry.

...16/19 Drawings and graphs re: zooplankton.

** AY **

B.C. FISH CULTURE AND McCLINTON CR. RECORDS

YEARS: 1921-49

SIZE: 4 boxes

DESCRIPTION

One sub-group of AY contains what is probably most of the original 1920's to 1940's records from the federal government fish culture program in British Columbia. Each hatchery submitted a detailed weekly report documenting (for example) the number of each species that was out-planted in specific locations. The species included trout and kokanee besides salmon because all fish were a federal responsibility at that time. This first sub-group also has other data: (1)from the Cowichan L. hatchery, regarding marking programs, egg takes, and physical measurements; and (2)from Cultus L., with diaries and data on counting and marking of juvenile sockeye and counting adult sockeye.

Files: 1/1-4/8.

The second sub-group has data from Pritchard's pink salmon studies at McClinton Creek. There is data on the nightly timing and abundance of fry migrating through the fence, egg-to-fry survivals, recovery data of adult pinks marked as fry, air and water temperatures, water levels, etc. There is also some data and reports on growth and general biology of cisco and alewife populations in eastern systems. Finally, there are some monthly activity reports from Skeena investigations between 1949 and 1951.

Files: 4/9-13.

HISTORY/SOURCE: Authors include Pritchard, Clemens, Foerster, Aro, Withler, Shepard and Neave

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Kokanee / Steelhead / Fish

Life Stage

Egg / Smolt / Juvenile / Mature

Statistical Area

1 (North Queen Charlottes) / 6 (Butedale) / 14 (Comox) / 18 (Cowichan) / 20 (Sooke) / 29 (Fraser R.) / 29-0 (Non-Fraser) / 29-3 (Chilliwack) / 29-4 (Lillooet-Seton) / 29-5 (Thompson R.)

Location

McClinton Cr. (1) / Masset In. (1) / Butedale (6) / Qualicum Beach / Cowichan system (18) / Cowichan R. (18) / Cowichan L. (18) / Oliver Cr. (18) / Beadnell Cr. (18) / Veitch Cr. (20) / Stanley Park (29-0) / Beaver L. (29-0) / Fraser system (29) / Cultus L. (29-3) / Smith Falls Cr. (29-3) / Pennask Cr. (29-5) / Paul L. (29-5) / Lloyd (Lloyd's) Cr. (29-5) / Eagle R. (29-5) / Taft (29-5) / Malakwa (29-5) / Summerland / Kelowna / Nelson / Argenta (Kootenay system) / Jasper Park (Alta.) / Clear L. (Man.) / L. Ontario

Aspect

Acclimatization / Anadromous migrations / Body size / Body weight / Calibration / Catch/effort / Escapement / Fecundity / Fish culture / Freshwater fish / Game fish / Growth / Hatcheries / Marking / Methodology / Mortality / Population number / Seasonal variations / Sex ratio / Spawning migrations / Stocking (Organisms) / Survival / Temporal distribution / Trap fishing / Water depth / Water temperature / Weather conditions / Weirs

REGISTER: RECORD GROUP AY

AY/1/1 Oliver Cr. and Beadnell Cr. (Cowichan system) - marking records for coho and trout, 1942-46.

AY/1/2 Cowichan L. hatchery - egg collection records, 1940-42.

AY/1/3 Cowichan L. hatchery - weather records, 1942-48.

AY/1/4 Cowichan R. water levels, 1945-48.

AY/1/5 "Return of marked coho to the Cowichan R., 1940", by F. Neave (drafts and notes).

AY/1/6 Misc. records and accounts from Cowichan Hatchery, Cowichan R., Oliver and Beadnell Crs., etc.

AY/1/7-14: Egg and fry records from Cowichan Hatchery:

...1/7 1934/35 - mainly chinook and coho. Includes summary of temperatures from 1925-34.

...1/8 1937 - coho.

...1/9 1937 - coho, chinook and steelhead.

...1/10 1938 - chinook and coho.

...1/11 1939 - chinook, coho and steelhead.

...1/12 1940 - steelhead and some trout.

...1/13 1941 - chinook.

...1/14 1943 - chinook.

AY/1/15-3/3: Weekly reports from hatcheries - records of brood stock collection, egg takes, water temperatures, egg receipts/shipments, hatching, egg and fry mortalities, distribution of juvenile out-plants and personnel data:

...1/15-19 Cowichan L. - Feb., 1934 to March, 1936 and July, 1937 to June, 1944.

...1/20-23 Veitch Hatchery (Sooke) - May, 1934 to 1937.

...2/1 Summerland - July/August, 1933; July/August, 1935; and June-August, 1936.

...2/2 Lardeau (Argenta) - July 7, 1934.

...2/3 Beaver L. (Stanley Park) - June/July, 1937.

...2/4 [No file]

...2/5 Cowichan L. - Feb., 1933 to Feb., 1934.

...2/6 Eagle R. (Taft) - correspondence re: construction of Malakwa fence.

...2/7 Lardeau (Argenta) - July/August, 1933.

...2/8 Kelowna - June/July, 1936

...2/9 "Lloyd's" (Lloyd) Cr. (near Paul L.) - April-July, 1934; May-August, 1935; and April-Aug., 1936.

...2/10-14 Nelson - Feb., 1933 to August, 1937.

...2/15 Pennask - May-July, 1933; May-August, 1935; and May, 1936 to Aug., 1937.

...2/16-21 Qualicum Beach ponds - June, 1932 to April, 1937.

...2/22 Smith Falls (Cultus L.) - Dec., 1933 to March, 1935.

...2/23-3/3 Beaver L. (Stanley Park) - June 1933 to Dec., 1937.

AY/3/4-5 Fish culture - general information and observations, Vols. I and II (Clemens, Foerster and Motherwell), 1924-49.

AY/3/6-11 Cultus L. Hatchery records and notes, 1923-39.

AY/3/12 Cultus L. - counts and marking records for sockeye smolts (R.E. Foerster), 1926-40.

AY/3/13-16 Cultus L./Fraser R. sockeye spawning runs - records of migrations, with diary and notes, 1932-35.

AY/3/17 Cowichan L. Hatchery - correspondence re: fish culture techniques, 1930-34.

AY/3/18-4/8: Correspondence about operations at each hatchery, fish culture techniques, etc.:

...3/18 Trout, 1925-33.

...4/1 Trout, 1934-47.

...4/2 Clear L. (Manitoba), 1934-35.

...4/3 Paul L. (Vol. 1), 1921-42.

...4/4 Jasper Park, 1935-38.

...4/5 Qualicum (Vol. 1), 1932-38.

...4/6 Smith Falls, 1930-35.

...4/7 Stanley Park, 1929-39.

...4/8 Taft (Vol. 1), 1932-39.

AY/4/9 Alewife lengths and weights and rates of growth in L. Ontario (original data), 1927.

AY/4/10 Data and MS drafts on ciscoes (from Clemens, Pritchard et al.), 1926-27.

AY/4/11-12: McClinton Cr. pink and chum study:

...4/11 (1)Fry trapping counts, with daily times when the run began and ended and the % of this time that the trap operated (giving estimated total numbers for the night) - 1931,35,37 and 39; (2)replicate counts to get counting errors - 1933; (3)regressions of % of the night that fry run was trapped vs. % of nightly run that was caught - 1931,35 and 37; (4)regressions of start and end times of nightly runs on date - 1931,35 and 37; (5)summary of nos. of each sex in pink escapements, potential egg depositions, fry estimates and egg to fry survivals - 1930-42; and (6) regression of pink (?) fecundity vs. length.

...4/12 (1)Recovery data, including length, weight and sex of fin clipped pinks in Masset In. and from Butedale landings - 1934; (2)fry counts in stream (1934) and out of hatchery troughs (1935); (3)water level, air temperature, water temperature and some diary data - 1930-33; and (4)newspaper clippings re: Fisheries and PBS activities - ca. 1930's.

AY/4/13 Monthly activity reports from Skeena R. investigations (Aro, Withler, Shepard et al.), 1949-51.

** AZ **

US/CANADA COOPERATIVE PINK TAGGING PROGRAM

YEARS: 1951,1953,1955,1957-65

SIZE: 9 boxes

DESCRIPTION

In an attempt to manage the pink salmon stocks in Fraser Convention waters, a tagging program was undertaken in 1959 by Canada (FRBC), by the US (WDF) and by the International Pacific Salmon Fisheries Commission (IPSFC). Most of the tagging was done in 1959 with some further work done in 1961, the next cycle year. The data is primarily (1)catch records and (2)tagging and tag recovery records from Queen Charlotte Strait to Juan de Fuca Strait and Puget Sound. This includes results from stream surveys and a few fence operations (eg. Glendale R.). Other files have data analyses, committee reports and minutes.

HISTORY/SOURCE: Deposited by J. Manzer. Authors were A.S Hourston, M.P. Shepard et al.

INDEX TERMS

Species

Pink / Chum

Life Stage

Mature

Statistical Area

12 (Alert Bay) / 13 (Quathiaski) / 14 (Comox) / 15 (Toba In.) / 16 (Pender Harbour) / 19 (Victoria) / 20 (Sooke) / 28-1 (North Vancouver) / 28-2 (Squamish) / 29 (Fraser R.) / 50 (Georgia Str.)

Location

Queen Charlotte Str. (12) / Glendale R. (12) / Knight In. (12) / Johnstone Str. (12-13) / Phillips Arm (13) / Georgia Str. (50) / Skwawka R. (16) / Cheakamus R. (28-2) / Juan de Fuca Str. (19-20) / Fraser system (29) / Puget Sd. (Wash.)

Aspect

Abundance / Annual variations / Catch composition / Coastal fisheries / Escapement / Experimental fishing / Exploitation / Fish catch statistics / Fishery regulations / Gear selectivity / Gillnetters / International cooperation / Mapping / Methodology / Population number / Purse seining / Spawning grounds / Spawning migrations / Spawning seasons / Stock identification / Tagging / Temporal distribution / Trolling / Weirs

REGISTER: RECORD GROUP AZ

AZ/1/1-4 FRBC, IPSFC and WDF tagging records by tag no., date and location, 1960-61.

AZ/1/5 Weekly catch statistics, by area and gear, and worksheets for the Cdn. study area, Areas 12-16 and 28, 1959.

AZ/1/6 Weekly catch statistics for US non-convention waters, by area and gear.

AZ/1/7 Seasonal catch statistics for Cdn. study area, Areas 12-16 and 28, with worksheets showing specific locality of catches, 1959.

AZ/2/1 Daily catch records for the Cdn. non-convention area, by area (12-16 and 28), and sub-areas, 1960-61.

AZ/2/2 Index to FRBC, IPSFC and WDF tagging records, 1960-61.

AZ/2/3-7 Analyses of marine tagging data for upper and lower Johnstone Str., upper and lower Georgia Strait and Queen Charlotte Str., 1961.

AZ/2/8 Summaries of catch records and statistics for convention and US non-convention areas with data on Indian fishery, 1959.

AZ/2/9 1959 catch statistics for Areas 12,13 and 16: (1)specific catch locations from sales slips and field work; (2)estimate of effect of net closures on escapements; and (3)assignment of buyers to sub-areas.

AZ/2/10 FRBC coding records and tag removal list, 1959.

AZ/2/11 FRBC tagging and recovery records with dates, tag nos. and locations (with misc. notes), 1959.

AZ/2/12-14 Troll catches for Areas 13-15, May to Sept., 1959.

AZ/2/15-19 Seine catches for Areas 12-16, June to Sept., 1959.

AZ/2/20-25 Preliminary gillnet catch statistics from FRBC, giving packer information and sub-area records, 1959.

AZ/3/1 Troll catches for Area 12 with packer information, 1959.

AZ/3/2-3 Data summaries from stream surveys by IPSFC and FRBC, 1959.

AZ/3/4 Data from daily carcass pitches and notes about stream surveys (Fraser R. system), 1959.

AZ/3/5 WDF stream reports, 1959.

AZ/3/6 WDF stream data with enumeration of spawning ground populations and freshwater recovery of marine tags, 1959.

AZ/3/7 Stream tagging and recovery data from US and Cdn. convention and study areas, 1959.

AZ/3/8 FRBC stream survey data with draft report by A.S. Hourston: "Analysis of the estimate of pink salmon escapements to streams in the Canadian study area", 1960.

AZ/3/9 IPSFC spawning ground maps for Fraser R. system, 1959.

AZ/3/10 Arrival dates of pink spawners to streams in the Fraser system, 1959 and 1961.

AZ/3/11 Puget Sd. cumulative catches, 1959.

AZ/3/12 Gear selection - tags per 1000 fish in seine and gillnet catches from Cdn. study area, 1959.

AZ/3/13 Stocks diverging from different Johnstone Str. fisheries (upper Vancouver Is., Knight In. and Phillips Arm), 1959.

AZ/3/14 Summary of convention and Cdn. study area data for possible publication, 1953-63.

AZ/3/15 Weekly catches and days open in Areas 12,13 and 29, 1951-65 (odd years).

AZ/3/16 Pink Salmon Coordinating Committee - minutes of meeting no. 7, 1960.

AZ/3/17 Troll catches in Areas 16 and 28, 1959.

AZ/3/18 Notes on using buyer information to assign tags and catches to sub-areas.

AZ/3/19 1959 pink program - procedures.

AZ/3/20 Salmon fishing closures, 1959.

AZ/3/21 State of Wash. calendar of fishing openings and closures, 1959.

AZ/3/22 List of special supplies for pink program.

AZ/3/23 Blank forms.

AZ/3/24-26 Coded summaries of FRBC, IPSFC and WDF tagging data, 1959.

AZ/3/27 Tags applied (per set, etc.), 1959.

AZ/3/28-29 Basic tagging data from "Wendy Belle" and "Cape Blanco" in upper Johnstone Strait, 1959.

AZ/3/30 Recoveries by tagging boats, 1959.

AZ/3/31 Tagging by day and relative recovery rates by the fishery in the tagging area, 1959.

AZ/3/32 FRBC recoveries of WDF tags, 1959.

AZ/3/33 Elapsed time ("Days out") from tagging in Area 12 to recovery, 1959.

AZ/3/34 Contribution of stocks to the fishery and estimates of stock size as determined by tagging, 1959.

AZ/3/35 FRBC tagging and freshwater recoveries in Cdn. study area, 1959.

AZ/3/36-44 Pink Salmon Coordinating Committee and Pink Salmon Technical Sub-Committe - reports and minutes, 1958-60.

AZ/3/45-4/4 Original catch statistics for seine, gillnet and troll in Areas 12-16 and 28, 1959.

AZ/4/5-5/7 Original tag recovery documents with reward letters, 1959.

AZ/5/8 (1)Analysis of marine tagging data; (2)Technical Sub-Committee minutes and reports; and (3)WDF catch statistics, 1960-61.

AZ/5/9 IPSFC catch statistics, 1961.

AZ/5/10 WDF summaries of stream survey data, 1961.

AZ/5/11-12 FRBC summaries of stream survey data and comparison of 1959 and 1961 abundances of stocks in the Cdn. study area (12-16 and 28), 1961.

AZ/5/13 Data from spawning ground surveys (e.g. live counts) in the Cdn. study area (12-16 and 28), 1961.

AZ/5/14-15 IPSFC tagging records and catch statistics for the convention area, 1961.

AZ/5/16 Dead counts in Skwawka R., 1961.

AZ/5/17 Tag recoveries from sales slips and fish tickets, 1961.

AZ/5/18 Juan de Fuca Str. - IPSFC tag recovery data and summaries, 1961.

AZ/5/19 Tag recovery program for the Indian fishery at Cheakamus R., 1961.

AZ/5/20 Summary of reports to Cdn. and US governments by Pink Salmon Coordinating Committee, 1965.

AZ/5/21 Pink Salmon Technical Sub-Committee - minutes of meetings, 1964-65.

AZ/5/22 Pink Salmon Coordinating Committee - minutes of meeting nos. 8-11, 1960-63.

AZ/5/23 Preliminary reports on the results of the 1961 field program, 1961.

AZ/5/24 Report: "Timing of pink runs through Johnstone Str. and the effect on the fishery", 1961.

AZ/5/25 Pink Salmon Technical Sub-Committee - minutes of meetings, reports and catch statistics, 1961.

AZ/5/26 Fence counts and tagging/tag recovery records from Glendale R., 1961.

AZ/5/27 Pink Salmon Coordinating Committee - April report, 1961.

AZ/5/28 Synopsis of IPSFC Bulletins XV and XVII, 1965.

AZ/5/29 Pink Salmon Protocol ("confidential"), 1965.

AZ/5/30 Protocol and US negotiations - background information re: chum salmon.

AZ/5/31 WDF field records for Puget Sd. tagging (nos. tagged by river), 1961.

AZ/5/32 Fraser R. system - weekly spawning ground reports (D.O.F. Fish Culture Service), 1961.

AZ/5/33 Report on "annual variability", 1961.

AZ/5/34 Analyses of FRBC and WDF statistics, 1961.

AZ/5/35 Fishing closures for 1961 - giving areas, dates and reasons, 1961.

AZ/6/1-4 Catch statistics, including weekly accumulations, for areas 12-16, 1961.

AZ/6/5 IPSFC Information Bulletin on catches in convention area, 1961.

AZ/6/6 Catch records showing areas, locations, week and gear, 1961.

AZ/6/7 (1)WDF catch records, 1961; (2)minutes of Pink Salmon Coordinating Committee meeting no. 7, 1961; and (3)tagging records from "Cape Blanco", 1959.

AZ/6/8 FRBC tabulations of tag recoveries, with "agency unknown recoveries", 1959.

AZ/6/9 Notes regarding computer cards that have not been re-punched, 1962.

AZ/6/10-11 Recovery documents and reward letters from IPSFC and WDF, 1959.

AZ/6/12 Boat and tag information with field books, 1959?.

AZ/6/13 Tag receipts issued from D.O.F. (Vancouver), 1959.

AZ/6/14 Notes about coding and tabulations, 1959.

AZ/6/15-7/9: IPSFC tag return data (1959):

...6/15 US recoveries from fish tickets.

...6/16 US recoveries from cannery offices.

...6/17 Recoveries other than those purchased from industry (2 files).

...6/18-7/3 Cdn. recoveries from sales slips.

...7/4 Cdn. recoveries from cannery offices.

...7/5-7 Miscellaneous recoveries (possible duplicates).

...7/8-9 US recoveries recorded on fish tickets (nos. 1-400).

AZ/7/10-11 FRBC tag receipt records (by company) from cannery offices and sales slips, 1959.

AZ/7/12 Tags that were reported more than once, 1959.

AZ/7/13 Payments due industry for tag recoveries, 1960.

AZ/7/14 Balance sheets for tagging program, 1959.

AZ/7/15 WDF tag recoveries other than those purchased from industry.

AZ/7/16-8/1 FRBC computer listings which include marine and weekly freshwater recoveries, days out data and special groupings, 1959.

AZ/8/2-3 Index to computer tabulations for the Cooperative Pink Program, with revised coding instructions, 1959.

AZ/8/4 Tabulations, summaries, notes, adjustments, etc., 1959.

AZ/8/5 Tag recoveries from Cdn. cannery offices, 1959.

AZ/8/6-7 Boxes of FRBC disc tags recovered from streams and WDF disc tags recovered in Cdn. areas, 1959.

AZ/8/8 Unlabelled disc tags from the Cooperative Pink Program, 1959.

AZ/9/-(entire box) Disc tags as in file 8/8.

** BA **

ADMINISTRATIVE FILES FOR THE ENVIRONMENTAL RESEARCH GROUP

YEARS: 1966-76

SIZE: 15 boxes

DESCRIPTION

This record group has the administrative files for the Environmental Research Group (ERG) which existed at PBS from 1970 to 1976. The ERG section contained investigations having the general objective of increasing and preserving the productivity of the aquatic environment. Some of the work was on the ecology of salmon in lakes and streams and the feasibility of lake fertilization. Marine work ranged from pollution studies in local estuaries to oceanographic programs using high seas data. Most of the data is in the form of copies of publications. However, a large portion of the Record Group deals with committee work, finances and personnel.

Because personnel matters are involved, the file titles are only available in hard copy from the Library.

HISTORY/SOURCE: C.D. McAllister

INDEX TERMS

Species

Sockeye / Chum / Coho / Steelhead / Salmon / Fish / Plankton / Other

Life

Stage Fry / Juvenile / Ocean fish / Age unspecified or non-applicable

Statistical Area

7 (Bella Bella) / 14 (Comox) / 17 (Nanaimo) / 18 (Cowichan) / 23 (Barkley Sd.) / 28-2 (Squamish) / 29 (Fraser R.) / 29-5 (Thompson R.) / 50 (Georgia Str.)

Location

Station 'P' / High Seas / Aburatsubo In. (Japan) / Bella Bella (7) / Campbell River / Rosewall Cr. (14) / Lymn Cr. (14) / PBS (17) / Nanaimo / Nanaimo Ls. (17) / Saanich In. (18) / Great Central L. (23) / Carnation Cr. (23) / Port Alberni / Squamish R. (28-2) / Fraser R. (29) / Moran (29-5) / Roberts Bank (29) / Georgia Str. (50)

Aspect

Behaviour / Benthic environment / Biomass / Body size / Chemical oceanography / Coastal zone / Competition / Counters / Dams / Digestion /

Enclosures / Estuaries / Experimental data / Feasibility / Fish culture / Fish larvae / Fishery oceanography / Food availability / Food consumption / Food organisms / Freshwater ecology / Freshwater fish / Grazing / Growth / Habitat improvement (Fertilization) / Inorganic suspended matter / Marine fish / Meteorological data / Methodology / Micro-organisms / Pelagic environment / Phytoplankton / Population density / Predation / Predictions / Primary production / Production (Biological) / Reproductive behaviour / Research programmes / Research vessels / Scientific personnel / Secondary production / Sedimentation / Shellfish culture / Size distribution / Sport fishing statistics / Stomach content / Survival / Trophic levels / Upwelling / Water analysis (Chemical) / Water pollution / Zooplankton

REGISTER: RECORD GROUP BA

[File titles are available from the Library, Pacific Biological Station]

** BB **

TAGS RETURNED FROM INTERNATIONAL TAGGING OF PINKS AND SOCKEYE IN S.E. ALASKA AND NORTHERN B.C.

YEARS: 1982

SIZE: 8 boxes

DESCRIPTION

BB has envelopes containing recovered tags, alphabetically sorted by the returnee's name. The Petersen tags were put on pinks and sockeye in 1982 by Alaska and Canada. They were tagged in SE Alaska and northern B.C. coastal waters (Areas 1 and 3-5). The envelopes have data on them regarding where, when and how the tag was recovered and by who. Locations of recovery are too numerous to list in the index and register but come from all (or almost all) statistical areas.

HISTORY/SOURCE: B. Riddell

INDEX TERMS

Species

Sockeye / Pink

Life Stage

Mature

Statistical Area

All B.C. Areas

Location

Prince Rupert / Nanaimo

Aspect

Coastal fisheries / Fishery industry plants / Fishing gear / Fishing grounds / International cooperation / Spawning grounds / Spawning migrations / Stock identification / Tagging / Test fishing / Weirs

REGISTER: RECORD GROUP BB

BB/1-4: Tags returned at Prince Rupert (arranged alphabetically by returnee's surname in boxes 1 to 4):

...1: A to G

...2: H to L

...3: M to R

...4: S to Y

BB/5-8: Tags returned at Nanaimo (arranged alphabetically by returnee's surname in boxes 5 to 8):

...5: A to D

...6: E to J

...7: K to Q

...8: R to Z

** BC **

PHOTOS OF EARLY RESEARCH ACTIVITIES, ESPECIALLY SKEENA SALMON STUDIES

YEARS: 1920'S TO 1962

SIZE: 1 box

DESCRIPTION

This Record Group contains photographs which were taken by FRB staff in the course of their work. Most of the albums date from the 1940's when sockeye and sockeye lakes were being investigated in the Skeena system. However, there are photos from FRB activities throughout the 1920's to 1960's. Most, but not all of these activities were salmon studies.

HISTORY/SOURCE: Unknown

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Fish / Other

Life Stage

Egg / Fry / Smolt / Ocean fish / Mature / Age unspecified/non-applicable

Statistical Area

1 (North Queen Charlottes) / 3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 14 (Comox) / 17 (Nanaimo) / 23 (Barkley Sd.) / 51-2 (W. coast of Vancouver Is.) / 29 (Fraser R.) / 29-0 (Non-Fraser) / 29-3 (Chilliwack) / 29-5 (Thompson R.) / 29-7 (Nechako)

Location

McClinton Cr. (1) / Damdochax L. (3) / Prince Rupert / Chatham Sd. (4-1) / Smith Is. (4-1) / Skeena system (4) / Gitnadoix R. (4-2) / Alastair L. (4-2) / Lakelse system (4-2) / Lakelse R. (4-2) / Williams Cr. (4-2) / Lakelse L. (4-2) / Kitsumkalum system (4-2) / Zymoetz (Copper) R. (4-2) / Kitwanga system (4-2) / Kispiox system (4-2) / Kispiox R. (4-2) / Swan L. (4-2) / Hagwilget Canyon (4-3) / Moricetown Falls (4-3) / Bulkley R. (4-3) / Morice system (4-3) / Morice L. (4-3) / Slamgeesh system (4-3) / Kluantantan Ls. (4-3) / Kluayaz L. (4-3) / Bear system (4-3) / Azuklotz L. (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Babine R. (Lower) (4-4) / Babine system (4-4) / Babine L. (4-4) / Morrison L. (4-4) / Qualicum Beach / PBS (17) / W. coast of Vancouver Is. (51-2) / Barkley Sd. (23) / Henderson L. (23) / Summerland / Okanagon L. (29-0) / Cultus L. (29-3) / Taft (29-5) / Eagle R. (29-5) / Shuswap L. (29-5) / Takla L. (29-7)

Aspect

Aerial photography / Aquatic mammals / Barriers / Commercial fishing / Conferences / Developmental stages / Experimental fishing / Exploratory fishing / Fishery industry plants / Freshwater fish / Freshwater lakes / Gillnetters / Hatcheries / Historical account / Landforms / Limnology / Marine crustaceans / Marine fish / Marking / Photographs / Predator control / Predators / Rivers / Samples / Scientific personnel / Seining / Shellfish fisheries / Spawning grounds / Spawning migrations / Stocking (Organisms) / Tagging / Trap fishing / Weirs

REGISTER: RECORD GROUP BC

BC/1/1 Photo album with landscapes, fish, sea lions, hatcheries (at Summerland, Taft and Henderson L.), fishing vessels and canneries (largely on the W. coast of Vancouver Is.), fences (e.g. McClinton Cr.) and fishing and research operations - 1920's and 30's.

BC/1/2 Similar to 1/1 - subjects include fish, seals, Babine and Okanagon Ls. (1930's), PBS conference portraits, hatcheries and fences (e.g. Cultus L., Qualicum Beach and McClinton Cr.), herring seining in Barkley Sd. and research operations (e.g. planting eggs in Eagle R. and beach seining in Shuswap L.) - 1920's and 30's.

BC/1/3 Pictures from an aerial survey of the Babine system, the upper Skeena area and the Takla L. area - ca. 1940's.

BC/1/4-13: Albums of photos of the following locations (and of staff working in these locations). The photos are largely from salmon studies in the Skeena system in the 1940's:

...1/4 Lakelse, Kitsumkalum, Bear and Babine systems; Hagwilget Canyon; Moricetown Falls; Kispiox R. and the Morice L. area - 1944.

...1/5 Chatham Sd. (?) (tagging off the "Lady V"), lower Skeena R., Gitnadoix system, Lakelse system (including photos of fence and smolt trapping operations), Kitsumkalum system, Zymoetz (Copper) R., Kitwanga system, Moricetown Falls and the Babine system - 1947.

...1/6 Much like file 1/5, with more emphasis on (1)the lower Skeena (from a study of seal predation on salmon), (2)other Area 4-1 and 4-2 streams and (3)the Kispiox system (including Swan L.) - 1946.

...1/7 Surveys in the Babine system (including Morrison L.) - 1946.

...1/8 Much like 1/5, but featuring (1)surveys of lake systems in the upper Skeena (Bear, Johanson, Sustut, etc.) and (2)construction of the first Babine R. fence - 1945.

...1/9 Babine system (construction of Babine R. fence, landscape pictures and photos of lake surveys and other operations) - 1946.

...1/10 Surveys of Moricetown Falls and of upper Skeena lake systems (Slamgeesh/Damdochax, Kluantantan/Kluayaz, Bear/Azuklotz and Sustut) - 1946.

...1/11 (1)Babine, Lakelse, Kitsumkalum, Morice and Kispiox systems, including photos of the Babine L. and Lakelse L. hatcheries; and (2)fishing at Moricetown Falls. 1930's or early 1940's.

...1/12 1947 operations: (1)in the Babine system, including smolt trapping and marking; and (2)in the Bear system, including photos showing the construction of the fence below Bear L.

...1/13 1948 operations: (1)Lakelse smolt studies and Lakelse R. fence construction; (2)pictures of seining near Smith Is. and of the Bulkley R.; (3)Babine R. fence, before and after its wash out; and (4)other Babine photos, such as smolt trapping and marking.

BC/1/14 (1)Negatives of fry trapping and stream surveys (for McDonald's Skeena pink study?) and limnological surveys of Babine L. - probably late 1950's; and (2)photos of Babine R., Lakelse R. and Williams Cr. fences (ca. 1958, 1960 and 1962, respectively), of the construction of the Williams Cr. fence in 1950 and of beach seining in a river in the late 1950's.

BC/1/15 (1)Negatives of scenes from the Prince Rupert area (1947), the Babine system (1947-48), Moricetown (1947-48) and the Lakelse system (1947); and (2)photos of miscellaneous subjects such as winter gillnetting in Lakelse L.

** BD **

EARLY STUDIES, MOSTLY ON QUEEN CHARLOTTE ISLANDS PINKS AND SKEENA R. SALMON

YEARS: 1910-1956

SIZE: 4 boxes

DESCRIPTION

Most of the record group 'BD' contains work by A.L. Pritchard, D. Milne and J. McDonald. Most of the Pritchard material deals with his pink and chum work on the B.C. coast, especially at McClinton Cr. on the Queen Charlotte Islands. There are more files from Pritchard and files from Milne, McDonald and others dealing with Skeena salmon studies, the largest segment being 1950's data from McDonald's sockeye study at Scully Cr. in the Lakelse system. We have designated Pritchard's pink and chum work as sub-group 1 and the Skeena salmon studies as sub-group 2. The remainder of the record group is sub-group 3.

1. Pink and chum studies (1928-51). Part of the sub-group has expenditures, budget estimates, equipment inventories and correspondence from the 1930's, primarily related to operations on the Queen Charlotte Islands (McClinton Cr. in particular). Other files have: (1)tagging and marking data; (2)sampling data such as ages, lengths, weights and fecundities; (3)meristic and morphometric data for racial studies of pinks; and (4) accounts of the attempt to create an off-year pink run in McClinton Cr. from a transplant of Tlell R. pinks. Other McClinton Cr. data include maps, water levels, marking data and an account of the environmental effects on upstream migration of pinks.

Files: 1/4,6-12,31,42,43; 2/1,2,4,13,23,26-28,34-38,40-42,51; 4/1,3,6,11-13,15.

2. Skeena salmon studies (1910-56). One part of this sub-group has 1950 to 1953 data from McDonald's study of sockeye in Scully Creek. There are environmental measurements, adult and juvenile counts and sampling data from a fence and from stream surveys. Another part has data on the Skeena fishery, with a discussion of the fishery, its landing statistics and sampling data from the landings. Also, there are files on other aspects of Skeena sockeye and on other salmon: (1)Milne's study of the effects of the Moricetown obstruction and the native fishery; (2)timing of salmon migrations through the Skeena system; (3)escapements and Babine fence data (the latter for 1946-47); (4)run predictions; (5)an evaluation of the accuracy of a tag-recapture estimate of the 1939 sockeye run into Williams Cr.; and so on.

Files: 1/13-19,22,25,27,30,32-41; 2/6-11,15,20-22,24,25,32,43-46,48; 3/7; 4/8,15-23,25; 3/1-14.

3. Other files. The rest of 'BD' has files from 1929 to 1955 on administrative matters such as expenditures, budget estimates and correspondence re: PBS activities in general and salmon investigations in particular. Also, there are files on tagging costs and tag recoveries from

coastal and Skeena tagging programs (1927-30 and 1947-48). Other files have scale development and chinook and coho age data, meristics data and catches and escapements.

Files: 1/1-3,5,44; 2/3,5,11,12,19,27,29-31,33,39,49,50,52; 3/15; 4/2,4,5,7-9,14.

HISTORY/SOURCE: J. McDonald, A. Pritchard, D. Milne et al.

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Salmon / Fish / Other

Life Stage

Egg / Alevin / Fry / Smolt / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

1 (North Queen Charlottes) / 2E (East Queen Charlottes) / 3 (Nass R.) / 4 (Skeena R.) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 14 (Comox) / 17 (Nanaimo) / 20 (Sooke)

Location

Queen Charlotte Islands (54) / Graham (North) Is. (54-1) / Masset In. (1) / McClinton Cr. (1) / Naden Hr. (1) / Tlell R. (2E) / Wales (Prince of Wales) Is. (3) / Nass R. (3) / Prince Rupert / Skeena R. (4) / Lakelse R. (4-2) / Williams Cr. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Lakelse L. (4-2) / Moricetown Falls (4-3) / Babine R. (4-4) / Vancouver Is. (51) / Qualicum (Big Qualicum) R. (14) / Nanaimo / PBS (17) / Sooke / Washington State

Aspect

Abundance / Age composition / Anadromous migrations / Annual reports / Aquatic mammals / Barriers / Body size / Body weight / Cage culture / Catch composition / Catch/effort / Census / Coastal fisheries / Cost analysis / Current measurements / Development (Biological) / Digestion / Environmental effects / Escapement / Fecundity / Fins / Fish catch statistics / Fishery regulations / Fishery statistics / Fishing effort / Fishing mortality / Freshwater fish / Gear research / Gillnetters / Gillraker counts / Gravel / Historical account / Horizontal distribution / Identification keys / Lesions / Limnological data / Long term changes / Manuals / Mapping / Marking / Measuring devices / Meristic counts / Mesh selectivity / Methodology / Population number / Predation / Racial studies / Redd sampling / Regional variations / Research vessels / River discharge / Scale reading (Ages) / Scales / Sex ratio / Spawning grounds / Stocking (Organisms) / Stomach content / Tagging / Temporal distribution / Test fishing / Trap fishing / Vertebrae counts / Water depth / Water temperature / Weirs / Yield predictions

REGISTER: RECORD GROUP BD

BD/1/1 Annual reports of investigations at PBS - ca. 1931.

BD/1/2 Analysis of salmon tagging costs (vessel charter vs. purchase), 1930.

BD/1/3 Expense accounts - 1929 salmon investigations (A.L. Pritchard).

BD/1/4 Expenditures - 1931/32 pink and chum investigations.

BD/1/5 Estimates, analyses and allotments - 1930.

BD/1/6 (1)"Factors Influencing the Upstream Spawning Migration of the Pink Salmon" (A.L. Pritchard) and (2)related data from McClinton Cr. on Massett In. (1930-34).

BD/1/7-11 Expenditures by Pink and Chum Investigation - 1935/36 to 1939/40.

BD/1/12 Estimates for Pink and Chum Investigation - 1931 to 1934.

BD/1/13-19: Length, weight and age data from cannery samples (Skeena R. Sockeye Investigation):

...1/13 Sunnyside and N. Pacific canneries (including Nass samples), 1949.

...1/14 Sunnyside and Inverness (including chum and steelhead), 1950.

...1/15-17 Sunnyside, 1951-53.

...1/18-19 N. Pacific cannery (with some test fishing and pink data), 1954-55.

BD/1/20-21 [No files]

BD/1/22 Objectives, procedures and general information on the Skeena Salmon Investigation (Pritchard et al.), 1944-50.

BD/1/23-26 [No files]

BD/1/27 Data from sampling pink redds on Lakelse R., 1956.

BD/1/28-29 [No files]

BD/1/30 (1)Field book from Scully Cr. with data on sockeye ages, trout predation, other predation and trout tagging, 1950; and (2)a diary of stream surveys, 1950.

BD/1/31 Expense ledgers - Queen Charlotte Islands field work, 1931-35.

BD/1/32 Scully Cr. - data from adult sockeye surveys above and below the fence, including egg counts, 1952.

BD/1/33 Scully Cr. - stream survey data (tagging, redd sampling, etc.), 1951.

BD/1/34 [No file]

BD/1/35 Stomach content sampling data from Scully Cr. fence (with time, light and temperature data), 1953.

BD/1/36 Downstream counts from Scully Cr. trap and fence (sockeye and coho fry, etc.), 1955.

BD/1/37 Williams Cr. flow data, 1954.

BD/1/38 Index cards showing stomach contents from cutthroat trout samples in the Lakelse/Scully systems, 1950.

BD/1/39 Field book with redd survey data from Scully Cr.(?). Includes gravel analysis, 1951.

BD/1/40 Scully Cr. - scale samples from trout and coho adults and yearlings.

BD/1/41 Field books from the Scully Cr. fence with fecundity data, stream survey data, etc. - 1950's.

BD/1/42 Experiments using marked pinks - illustrations of scars and correspondence (re: McClinton Cr., "Prince of Wales Is." (Wales Is.) and Skeena R.), 1942.

BD/1/43 Age determinations by tagging of pink and chum, 1929-30.

BD/1/44 Tables with calculated depths of fishing gear, 1934.

BD/2/1 Expenditures for Pink and Chum Investigation, 1933-34.

BD/2/2 Inventory of tagging apparatus, 1929.

BD/2/3 "True Mean Fishing Mortality", by Ricker, 1938.

BD/2/4 Correspondence re: scars in fin clipping experiments (Pritchard), 1932.

BD/2/5 "Key to the identification of the young of Pacific salmon", 1933.

BD/2/6 Use of tagging to assess spawner abundance (Williams Cr. sockeye) - text and graphs, 1939.

BD/2/7 Prediction of Skeena R. salmon runs with historical data, 1950-52.

BD/2/8 History, regulations, effort, etc. of Skeena fishery, 1950-52.

BD/2/9 (1)Data and text on cycles in catches from the Skeena R. sockeye and pink fishery (Milne, Neave, Wickett, etc.), 1910 to 1940's; and (2)photo of fishing sail boats on Skeena R.

BD/2/10 "Questionnaire on Constructive Criticism of Skeena Program" (Pritchard), 1949.

BD/2/11 Summaries and reports for Skeena, Nass and ocean tagging programs (with copy of a charter agreement), 1947-48.

BD/2/12 Appendices to Interim Report No. 1-6 (salmon catch and pack), 1946.

BD/2/13 Marking of pinks - general information on efficiency, errors and fin regeneration, 1931-39.

BD/2/14 [No files]

BD/2/15 Skeena R. Salmon Investigation accounting and records (Pritchard), 1944-47.

BD/2/16-18 [No files]

BD/2/19 Expenditures by salmon investigations, 1940-41.

BD/2/20 Commercial catch statistics for Skeena R., 1943-48.

BD/2/21 "Effects of the Indian fishery on Skeena R. salmon runs", with photos, by D.J. Milne, 1945.

BD/2/22 (1)Data from Moricetown Falls obstruction study and (2)"Moricetown Falls as an Obstruction to Salmon Migrations", 1945-47.

BD/2/23 Map of McClinton Cr. spawning grounds (pre-1940?).

BD/2/24 File reports, correspondence and data from the Skeena Salmon Investigation on distribution of escapements and surveys of sockeye nursery lakes.

BD/2/25 Correspondence discussing the poor pink return to the Skeena, 1932.

BD/2/26 Chum ages for N. coast and Vancouver Is. samples, 1932-47.

BD/2/27 Tagging records from Nanaimo to the Queen Charlotte Islands, 1927-30.

BD/2/28 Tag returns and summaries from 1925-29 tagging of all salmon spp., Queen Charlotte Islands, 1929-30.

BD/2/29 Coho tag recovery records showing ages, 1927.

BD/2/30 Coho age data and text: "Analysis of scale readings for tagged coho salmon", 1928.

BD/2/31 Sooke traps - report prepared for Royal Commission, 1939.

BD/2/32 Skeena R. Investigation - memoranda on objectives and proposals for an international marking/tagging program to determine migration rates and routes, 1937-38.

BD/2/33 Misc. correspondence by/to A.L. Pritchard, 1941.

BD/2/34 Correspondence re: pink salmon studies on Queen Charlotte Islands, 1928-51.

BD/2/35 Correspondence re: McClinton Cr. pinks, 1929-42.

BD/2/36 Pink catch statistics and historical data for the Queen Charlotte Islands area, 1927-37.

BD/2/37 Reviews, summaries and accounts related to pink and chum investigations on the northern mainland and Queen Charlotte Islands, 1928-56.

BD/2/38 Pink salmon studies - correspondence regarding Tlell R. (Graham Is.), 1930-34.

BD/2/39 Summary report: "On the development of scales in cutthroat and steelhead trout", by Clandinin, 1931.

BD/2/40 Fecundities of Massett In. and Naden Hr. pinks, 1928.

BD/2/41 Morphometric data from Qualicum R. and Naden Hr. chums, 1928.

BD/2/42 Expenditures by pink and chum investigation, 1934-35.

BD/2/43 Skeena R. Salmon Investigation - data on tagging, gillnetting, scale reading, etc., 1947-48.

BD/2/44 Photo plates for a publication on Lakelse L. (depth graphs, etc.).

BD/2/45 Skeena R. Salmon Investigations - background information and correspondence, 1938-40.

BD/2/46 Babine fence - counts of sockeye, pink, coho and chinook spawners, 1946-47.

BD/2/47 [No file]

BD/2/48 Indian fishery on upper and lower Skeena R. (catch data, notes and observations), 1946-47.

BD/2/49 Misc. manuscripts and reports by A.L. Pritchard re: "Fishery Biologist, Whence and Wither?", muskrats, caddis flies and water ousels. ca. 1930's.

BD/2/50 Salmon investigations material (mainly correspondence by/to Foerster and Pritchard), 1932-55.

BD/2/51 Gillraker and pyloric caecum counts from Queen Charlotte Islands pinks, 1938-41.

BD/2/52 Meristics data for all spp., from B.C. and Wash. State, 1929-35.

BD/3/1-13 Skeena Fishery - daily nos. landed of each species (sockeye, pink, chum, coho, red and white chinook and steelhead) by each gillnet fisherman affiliated with Cassiar Packing Co., 1922-28 and 1931-36 (by year).

BD/3/14 Seminar notes for a talk on meristics racial studies on salmon, with meristics data on each salmon spp. and steelhead from the Skeena system (Prince Rupert, Moricetown, Babine and Lakelse), 1946-47 and 1949.

BD/3/15 "Numerical Estimates of Salmon Escapements to Dist. 3, 1934-49", with raw data and rough drafts. All spp., 1950.

BD/4/1 Length and weight data for pen-reared salmon, Queen Charlotte Islands.

BD/4/2 "Lantern Slides for Ottawa Symposium", 1951.

BD/4/3 "Report on the Investigation of the Efficiency of Artificial Propogation in Building Up a Pink Run in the Off Year in McClinton Cr., Massett In."

BD/4/4 1931 Annual Report for Biological Board of Canada, Fisheries Experimental Stn., Prince Rupert.

BD/4/5 Ages of chinook salmon sampled in the Queen Charlotte Islands area and in various other areas of B.C., 1927-30.

BD/4/6 Pink tagging data and a MS draft, 1943.

BD/4/7 Expenditures for PBS salmon investigations, 1941-44.

BD/4/8 (1) "A Proposed Investigation for 1948 to Determine the Selective action of the Commercial Gillnets on the Skeena R." (Milne) and (2) "Contributions to the Life-History of the Sockeye Salmon" (W.A. Clemens), 1940.

BD/4/9 "Protection of Salmon Streams During Logging Operations" (R.E. Foerster), 1952.

BD/4/10 [No file]

BD/4/11 Expenditures for pink and chum investigations, 1932-33.

BD/4/12 Drafts of MS reports on pinks by A.L. Pritchard (with some raw data), 1947-48.

BD/4/13 (1)Instructions on the use of current meters and (2)water level data for McClinton Cr., 1938.

BD/4/14 "On the Use of Catch per Unit Effort As a Measure of Changes in the Abundance of an Animal Population", by W.E. Ricker (draft, with background data), 1939.

BD/4/15 Miscellaneous journals and expense account records (Pritchard) for Skeena and Queen Charlotte Islands investigations, 1932-38.

BD/4/16 Data and narrative on the Skeena fishery (history, statistics and analyses of trends and cycles), 1946.

BD/4/17 Migration timing (by spp.) at Skeena sampling stations: Prince Rupert, Lakelse, Moricetown and Babine, 1944-48.

BD/4/18 "Effect of Indian Fishery on Skeena R. Salmon Runs" (original draft with photo), 1946-47.

BD/4/19 Draft of: "An analysis of the Skeena River Salmon Fishery", by Milne, 1952.

BD/4/20 "Mammalian and other predators of Skeena R. salmon", by H.D. Fisher(?), 1947.

BD/4/21 "History and Trends of the Skeena R. Salmon Fishery", 1947.

BD/4/22 "The Skeena River Salmon Fishery With Special Reference to Sockeye Salmon" (rough drafts and correspondence), 1953.

BD/4/23 Notes, data, etc., from Skeena River Salmon Investigations, 1948-49.

BD/4/24 [No file]

BD/4/25 "Up country notebook" (field book from Milne), 1947.

** BE **

MARK/TAG RECOVERY TO EVALUATE HATCHERY PRODUCTION OF COHO

YEARS: 1925-30, 1946, 1949-53, 1956, 1959-62, 1964-74

SIZE: 13 boxes

DESCRIPTION

Record Group BE largely contains coho data arising from a US/Canada effort to evaluate the production and contribution to fisheries by chinook and coho hatcheries on the Columbia River and by hatcheries in B.C. and Washington. A fin-clipping program was used in the 1960's and was later replaced with a coded wire tagging (CWT) program. Most of the CWT data is contained in Record Group BW. Although there is some chinook data in this record group, most of it is in record group BH.

The first sub-group contains juvenile release and marking data from Washington and Oregon hatcheries for the years 1946, 1959-62 and 1964-67.

Files: 5/9; 12/5,7,8; 13/12.

The second sub-group is by far the largest and has mark recovery sampling data obtained from major landing ports, mostly in British Columbia (Vancouver, Victoria, Namu and Prince Rupert). The data was taken from 1964 to 1969. Besides some summaries of the sampling and mark recovery data and some computer coding keys, most of the sub-group consists of three forms. All of them show the date and location of capture and sampling, identification numbers associated with mark recoveries. A MARK RECOVERY FORM was filled out for each marked fish and has entries for fork and hypural length, whole and dressed weight, flesh colour, grade, sex, scale number and type of mark. It also has a diagram of a salmon and its fins for use in illustrating the mark. BIOLOGICAL SAMPLING SHEETS were used for unmarked samples from the landing and have the same data that are on the MR Form, except there is no diagram. It has columns for scale data (total freshwater age, "plus" growth and circuli measurements). There was also space to note the weight and number of each grade landed and the number sampled from the landing. This form differs from the "Biological Sampling Form" in BW mainly by having provision for the scale circuli data.

Files: 1/1-5/8; 5/18; 6/1-12/4; 12/6; 12/9-13/11; 13/19.

Some of the early CWT data is in the third sub-group of BE. It dates from 1970 to 1974 and includes data on (1)Canadian and Washington State recoveries and (2)estimates of catches of tagged and untagged coho by hatchery region and fishery.

Files: 13/13-18.

The last sub-group has data on chinook and coho tag recoveries in B.C. and the US for 1949-53 and 1956 and a comparison of the 1949-52 part of this data with even earlier work in 1925-30. There is also a discussion of the sport and troll fisheries in British Columbia.

Files: 5/10-17.

Key to special area numbers used by the Spring and Coho (SpringCo) Investigation:

40 - W. coast of Vancouver Is. (Statistical Areas 21-27)

41 - Georgia Str. (13-19)

42 - Queen Charlotte Sd. (6-11)

43 - Hecate Str. (2-5)

44 - Probably ocean troll off S.E. Alaska

(Note that Areas 1,12,20,28 and 29 were not grouped with other Areas.)

HISTORY/SOURCE: H. Godfrey, B. Ball and D. Milne

INDEX TERMS

Species

Coho / Chinook

Life Stage

Smolt / Ocean fish

Statistical Area

All B.C. Areas

Location

Prince Rupert / Namu (8) / Georgia Str. (50) / Victoria / Juan de Fuca Str. (19-20) / W. coast of Vancouver Is. (51-2) / Vancouver / Fraser R. (29) / Washington State / Puget Sd. (Wash.) / Columbia system / Oregon / California

Aspect

Body size / Body weight / Catch composition / Coastal fisheries / Colour / Exploitation / Fins / Gillnetters / Grading / Hatcheries / Horizontal distribution / International cooperation / Landing statistics / Marking / Scale impression cards / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sex ratio / Sport fishing / Stock identification / Tagging / Trolling

REGISTER: RECORD GROUP BE

BE/1/1-5/8: Coho Mark Recovery (MR) Forms (including fin clip diagrams, and length, weight and age data):

...1/1-3/10 Vancouver, 1968, form nos. 1-6483.

...3/11-17 Namu, 1968, form nos. 1-512.

...3/18-23 Victoria, 1968, form nos. 1-674.

...4/1-20 Vancouver, 1969, form nos. 1-2263.

...4/21-30 Namu, 1969, form nos. 1-115.

...5/1-8 Victoria, 1969, form nos. 73-603.

BE/5/9 Pacific Marine Fisheries Commission - annual reports on tagging, stocking and hatchery programs in Wash., Ore. and Calif. (1946 and 1962).

BE/5/10 Chinook tagging and tag recovery data from W. coast of Vancouver Is., 1949.

BE/5/11 Chinook and coho tagging and tag recovery data from Georgia Str. (rough report and data), 1956.

BE/5/12 Chinook and coho tagging and tag recovery data from W. coast of Vancouver Is., 1950.

BE/5/13 Miscellaneous coho tagging and tag return data from B.C. (Areas 1-29) and US , 1951.

BE/5/14 Miscellaneous chinook tagging and tag return data from B.C., Wash. and Ore., 1952-53.

BE/5/15 Misc. papers (discussions on sport and troll fisheries), 1960.

BE/5/16 Chinook and coho tagging results for 1949-1952 compared with 1925-1930 results.

BE/5/17 Misc. reports re: comparisons of results from chinook and coho tagging.

BE/5/18 Coho marks taken by th US in the offshore salmon fishery (Illustrated MR Forms), Calif. and Ore., 1969.

BE/6/1(entire box) Coho marks taken by the US in the offshore salmon fishery (Illustrated MR Forms), Wash.(?), Ore and Calif., 1968-69.

BE/7/1-2: Biological Sampling Forms (scale data, hypural and fork lengths, weights) for coho from Areas 40 and 42:

...7/1 Namu landings in 1966 (includes scale impression cards).

...7/2 Vancouver landings in 1969.

BE/7/3-4: Coho MR Logs, 1966:

...7/3 Vancouver, week 34.

...7/4 Vancouver and Namu (with scale impression cards).

BE/7/5-8/4: Coho MR Forms for Vancouver landings:

...7/5-8/3 Form nos. 1442-2786 (includes scale samples), 1966.

...8/4 1965.

BE/8/5-6 Coho MR Logs, 1967:

...8/5 Vancouver (weeks 25-42).

...8/6 Prince Rupert (weeks 24-35).

BE/8/7-9/15: Coho MR Forms, 1967:

...8/8-9/14 Vancouver (nos. 1-1444), including scale samples.

...9/15 Prince Rupert (nos. 1-44).

BE/10/1 Coho MR Logs for Namu, weeks 25-35, 1967.

BE/10/2-7 Coho MR Forms for Namu, nos. 2-253, 1967.

BE/10/8-13: Biological Sampling Forms (hypural and fork lenths, weights) from coho landings, 1965:

...10/8-11 Vancouver (Areas 20,40-42, by area).

...10/12 Prince Rupert (Area 43).

...10/13 Namu (Areas 40-42).

BE/10/14-16: MR Forms (with scales) for 1965 landings of coho:

...10/14 Vancouver (mark nos. 1-12).

...10/15 Prince Rupert (nos. 1-13).

...10/16 Namu (nos. 1-130).

BE/10/17 Weekly sampling summaries for coho landings in 1965.

BE/11/1-4: Coho MR Logs, 1965:

...11/1 Vancouver, weeks 38,39 and 44.

...11/2 Namu, weeks 25-34.

...11/3 Prince Rupert, weeks 25-31.

...11/4 Victoria (Area 40 sport returns).

BE/11/5-7: Weekly sampling summaries for chinook and coho, 1964:

...11/5 Namu.

...11/6 Prince Rupert.

...11/7 Vancouver.

BE/11/8 Coho MR Logs and illustrations, Namu, 1964.

BE/11/9 Summary of Vancouver, Namu and Prince Rupert mark recoveries, Areas 40-43, 1966.

BE/11/10-17: Coho MR Logs and Forms, 1964:

...11/10 Victoria.

...11/11-15 Vancouver (weeks 32-37).

...11/16 Prince Rupert (weeks 29-33).

...11/17 Vancouver (miscellaneous).

BE/12/1-4: Coho MR Forms, 1969:

...12/1-2 "Offshore salmon fishery".

...12/3 Area 42 landed at Namu (mark nos. 116-187).

...12/4 Areas 400C and 401C landed at Victoria (mark nos. 1-72).

BE/12/5 "Columbia R. Coho" - hatchery records by brood year, 1964-66.

BE/12/6 Coho mark summaries from Wash. coast, Juan de Fuca Str. and W. coast of Vancouver Is., 1969.

BE/12/7-8 Columbia R. hatchery evaluation - record sheets for 1965 and 1966 brood years.

BE/12/9-10 Computer coding sheets with Columbia R. MR data from Vancouver, Namu and Victoria landings of coho, 1967-68.

BE/12/11 (1)Biological Sample Sheets for gillnet catches of Area 40 coho which were landed at Vancouver in 1967 and (2)key to coding of data for computer.

BE/12/12 Coho MR Logs for Vancouver (weeks 26-42), 1968.

BE/12/13 Biological Sample Sheets for coho, Area 1, 1964.

BE/12/14 Coho marks from Columbia R. and Puget Sd. - index and key for computer tabulation of sampling data, 1967.

BE/12/15 "Number of coho and chinook salmon sampled on Biological Sheets", Namu, 1968-69.

BE/13/1 Coho MR data (Columbia R. hatchery evaluation) from Vancouver, Victoria and Namu, 1969.

BE/13/2 Records of biological sampling, 1968-69.

BE/13/3 Biological Sample Sheets - Area 40-41 coho landed at Vancouver (sampled by grade), 1968.

BE/13/4 Fraser R. MR Logs and Forms for coho and chinook (with scale samples), 1968.

BE/13/5 Coho MR Logs (troll catch) from Victoria and Namu, 1968.

BE/13/6 Biological Sampling Forms for Namu landings of Area 40-42 coho, 1968.

BE/13/7-11 Biological Sampling Forms for Vancouver landings of coho, 1964.

...13/7 Area 40.

...13/8 Area 41.

...13/9 Area 42.

...13/10 Area 43.

...13/11 Areas 12,13,20 and 29.

BE/13/12 Washington State hatchery reports, 1966.

BE/13/13 Washington recoveries of coho (and some chinook) that were tagged by agencies other than WDF - showing general recovery locations in sport and troll fisheries, the release agency and location, the % tagged at release, and the brood year of the fish (1970-73 brood years).

BE/13/14 "Preliminary estimates of catches in each Canadian fishery (excluding Georgia Str.) of tagged and untagged coho released from Canadian, Puget Sd., Washington coast and Columbia hatcheries", 1974.

BE/13/15 Second estimates of Canadian catches, by fishery and catch region, of tagged and untagged coho released from each Canadian hatchery and Puget Sd., Washington coast and Columbia hatcheries, unknown year.

BE/13/16 CWT (coded wire tag) key for each Cdn. and US hatchery, and recovery data, for releases of 1971 brood year fish. Indicates nos. tagged and study involved.

BE/13/17 CWT recoveries in Cdn. fisheries (by region, showing type and agency), 1974.

BE/13/18 Unlabelled tables of data similar to those in 3/15.

BE/13/19 Data report: "Columbia R. hatchery contribution study - 1969 sampling season", 1971.

** BF **

CONDITIONS FOR SURVIVAL AND DEVELOPMENT OF SALMON EGGS

YEARS: 1910-65

SIZE: 2 boxes

DESCRIPTION

The group has been divided into two sub-groups. The first has adult salmon data: catches and escapements for the 1930's and 1940's (primarily), age readings from chum scales, and an historical account of the chum fishery. Most of the catch and escapement data is presented by species, Statistical Area and year. There is some comparison of salmon returns with discharge and precipitation data.

Files: 1/2-10,13-17,21; 2/3-4,7-17.

The second sub-group deals more directly with in-stream survival of salmon and the stream environment, especially the gravel environment. Much of the data is from streams on the E. coast of Vancouver Island. There is some experimental data assessing the effect on survival of eggs and alevins of salinity, oxygen, temperature and bulk transport of water. The rest is field observations, such as fry counts, predicted yields of salmon and gravel permeability measurements.

Files: 1/1,11-12,18-20,22-41; 2/1-2,5-6,18-22.

Note: District numbers refer to the old three districts: District 1 was Areas 28-29, District 2 was the north coast (Areas 1-10 and 30) and District 3 was the south coast (Areas 11-27 and C).

HISTORY/SOURCE: P. Wickett

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Salmon

Life Stage

Egg / Alevin / Fry / Mature

Statistical Area

All B.C. Areas

Location

McClinton Cr. (1) / Queen Charlotte Islands (54) / Nass R. (3) / Skeena R. (4) / Lakelse R. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Williams Cr. (4-2) / Fulton R. (4-4) / Butedale (6) / Bella Bella (7) / Hooknose Cr. (8) /

Tally Cr. (8) / Bella Coola (8) / Vancouver Is. (51) / Johnstone Str. (12-13) / E. coast of Vancouver Is. (51-1) / Campbell R. (13) / Puntledge R. (14) / Wilfred Cr. (14) / Morrison Cr. (14) / McNaughton Cr. (14) / Chef (Cook) Cr. (14) / Lymn Cr. (14) / Nile Cr. (14) / Qualicum (Big Qualicum) R. (14) / Horne L. (14) / Cowichan R. (18) / Marble (Amazon) R. (27) / Capilano R. (28-1) / Fraser system (29) / Canada

Aspect

Calibration / Coastal fisheries / Dams / Dissolved oxygen / Escapement / Experimental culture / Fish catch statistics / Gravel / Historical account / Hydrology / Incubation / Industrial products statistics / Lenitic currents / Lenitic environment / Lethal limits / Limiting factors / Mapping / Population number / Precipitations (Atmospheric) / Recording equipment / Redd sampling / Regression analysis / River discharge / Salinity tolerance / Scale impression cards / Scale reading (Ages) / Spawning grounds / Survival / Time series analysis / Water depth / Water quality / Water temperature / Yield predictions

REGISTER: RECORD GROUP BF

BF/1/1 Discharge graphs for Puntledge, Capilano and Cowichan Rs., 1914-43.

BF/1/2 Pink catches, 1930-49.

BF/1/3 Pink spawning report graphs (annual escapements for each Statistical Area), 1930-48.

BF/1/4 District 3 escapement graphs for chum, pinks, coho and chinook, 1934-49.

BF/1/5 Chinook spawning report graphs (annual escapements for each Statistical Area), 1930-44.

BF/1/6 (1)Chum catches and escapements (all Areas) and (2)discharge and precipitation graphs for the Marble ("Amazon"), Campbell, Nass and Skeena Rs., 1928-48.

BF/1/7 Graphs of total catches for Butedale, Bella Bella and Bella Coola (Areas 6-8) - all salmon spp.

BF/1/8 Graphs of annual pink catches by Area, 1930-48.

BF/1/9 Chum scale readings (ages), 1946.

BF/1/10 Pink escapement counts for E. coast of Vancouver Is. and the Fraser system, 1943.

BF/1/11 Experimental data: effect of salinity on pink and chum egg survival - Morrison and Nile Crs., 1945.

BF/1/12 "Pink Salmon Investigation in B.C.", by A.L. Pritchard (fry and adult studies on Queen Charlotte Islands, 1928-36).

BF/1/13 Landings and values of catches for Canadian fisheries, 1930-50.

BF/1/14 "History of Chum Salmon Fishery in B.C.", by J.E. Moore - 1910-45.

BF/1/15 Statistical analyses of chum catches, 1926-54.

BF/1/16 Seine catches by species, Area (1-27) and year (1930-48).

BF/1/17 Total annual catch (in cwt) for all spp., 1930-48.

BF/1/18 Spawning stream conditions (e.g. gravel) related to survival of salmon, particularly on E. coast of Vancouver Is., 1949 and 1954-58.

BF/1/19 Drawings of standpipe for percolation tests.

BF/1/20 Survey charts of Chef Cr. and (Big) Qualicum R.

BF/1/21 Tables and graphs of pink and chum catches by Area, for various Areas, 1942-55.

BF/1/22 History of Fulton R. fry production and misc. papers.

BF/1/23 (1)Qualicum R. gauge readings and surveys and (2)counts of chum, pink and coho fry in Nile Cr., 1957-58.

BF/1/24 Qualicum R. - distribution of "K10" values (measure of gravel permeability), 1960.

BF/1/25 Velocity graphs and instructions for calibrating gravel permeability standpipe, 1960.

BF/1/26 Coho fry counts for Chef Cr.

BF/1/27 (1)Chum and pink egg experiments at Nile and Morrison Crs. (1945-46) and (2)coho fry experiments from Lymn Cr., 1948.

BF/1/28 Reports on model salmon beds.

BF/1/29 (1)Pink salmon egg deposition in Lakelse R., 1955, and (2)papers on survival of eggs in gravel.

BF/1/30 Field data from study on gravel in spawning grounds, 1954-55.

BF/1/31 Experimental data from laboratory tests of the effect of (1)mass transport of water, (2)oxygen concentrations and (3)temperature on chum(?) eggs and alevins and on the concentration of waste products (e.g. ammonia and carbon dioxide), ca. 1955-56.

BF/1/32 Report, with data, on Big Qualicum R. study.

BF/1/33 Water storage and control at (Big) Qualicum R. and Horne L., 1960.

BF/1/34 (1)Biological potential of Qualicum R.; (2)chum and pink reports (egg to fry survival); and (3)report on fish and water power.

BF/1/35 Scale impressions and ages of chum from several B.C. Areas, 1945-51.

BF/1/36 Nile Cr. chum - sampling data, 1949.

BF/1/37 Data from a survey of the spawning gravel in Wilfred Cr., 1959.

BF/1/38-39: Spawning densities and fry productions related to spawning gravel surveys:

...1/38 Sockeye in Tally, Scully and Williams Crs., 1939-56.

...1/39 Pinks in Hooknose, McClinton and Nile Crs., 1930-60.

BF/1/40 Spawning gravel survey of McNaughton Cr. - gravel permeability measurements, using standpipes, with oxygen concentrations by month and site in stream, 1958-59.

BF/1/41 "Biological Potential of the Qualicum River" (FRB MS No. 676), by W. P. Wickett, 1959. (file includes chum fry counts).

BF/2/1 McNaughton Cr. and Wilfred Cr. spawning gravel surveys, 1958-59.

BF/2/2 "Requirements for Electronic Recording of Differential Pressures".

BF/2/3 Fraser R. pink catches and escapements, with related river discharge and precipitation data.

BF/2/4 Graphs of annual sockeye catches in Area 23, 1926-50.

BF/2/5 Stream discharge graphs for some streams on Vancouver Is. and for the Fraser and Skeena Rs.

BF/2/6 Report: "Synergetic Salmon Systems".

BF/2/7 Graph of percent increase or decrease of cycle year over brood year for pink and chum catches.

BF/2/8 Graphs of chum pack (in cases).

BF/2/9 Graphs of chum catches and escapements.

BF/2/10 Chum catch statistics.

BF/2/11-13: Graphs of annual catches, by Area:

...2/11 Chinook 1930-48.

...2/12 Sockeye, 1930-44.

...2/13 Chum, 1930-48.

BF/2/14 Graphs of annual chum escapements, by Area, 1926-48.

BF/2/15 Catches and escapements of chum in Queen Charlotte Islands, Bella Bella and Bella Coola (Areas 1,2,7 and 8), 1945.

BF/2/16-17: Data relating river discharges to subsequent returns (catches plus escapements), 1927-45:

...2/16 Pinks in the Johnstone Str. Area and on Vancouver Is.

...2/17 Fraser R. chums.

BF/2/18 Spawning stream surveys with oxygen data, gravel permeability data (from standpipe tests) and data from sampling of coho and chum redds - various Areas from 1 to 27, 1954-58.

BF/2/19,20,22: Spawning gravel measurements:

...2/19 Qualicum R. and Williams Cr., 1958.

...2/20 McNaughton Cr., 1958-59.

...2/22 Chef Cr., 1963-65.

BF/2/21 Coho spawning surveys and fry counts for Vancouver Is. streams, 1960-62.

** BG **

SPRINGCO INVESTIGATIONS

YEARS: 1929,1937,1949-65

SIZE: 3 boxes

DESCRIPTION

"BG" has files from D. Milne on adult and sub-adult chinook and coho. There are tagging and sampling records and reports from the US/Canada program in 1957/58 to identify movements, distributions and origins of coho in Juan de Fuca Strait. There are also chinook and coho tagging records from the Vancouver Is. - Queen Charlotte Is. area, taken in the early 1950's. Many files contain basic sampling data, mostly lengths and weights of chinook and coho landings in the 1950's. Some of these files and other files have catch data for these species. One has tuna catches. There is some mark recovery data from the W. coast of Vancouver Is. in 1964/65. Finally, there are some miscellaneous files, such as a group of photos from Milne's investigations in the mid 40's to 50's.

HISTORY/SOURCE: D. Milne and H. Godfrey

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Fish

Life Stage

Egg / Ocean fish / Mature

Statistical Area

All B.C. Areas

Location

Langara Is. (1) / Graham (North) Is. (54-1) / Queen Charlotte Islands (54) / Prince Rupert / Hecate Str. (53) / Skeena R. (4) / Moricetown Falls (4-3) / Namu (8) / Rivers In. (9) / Bull Harbour (12) / E. coast of Vancouver Is. (51-1) / Georgia Str. (50) / Nile Cr. (14) / Lambert Chan. (14) / Nanaimo / Juan de Fuca Str. (19-20) / Sooke / Swiftsure Bank (21) / W. coast of Vancouver Is. (51-2) / Ucluelet / Kyuquot Sd. (26) / Winter Harbour (27) / Vancouver / Point Grey (29) / Fraser R. (29) / Harrison R. (29-2) / Adams R. (29-5) / Washington State / Umatilla Bank (Wash.) / Columbia system / Columbia R.

Aspect

Age composition / Body size / Body weight / Coastal fisheries / Colour / Diseases / Echo sounding / Ectoparasites / Escapement / Fish catch statistics

/ Fishery statistics / Fecundity / Gear research / Gillnetters / Growth / Hatcheries / Historical account / International cooperation / Marine fish / Marking / Migrations / Photographs / Progress reports / Purse seining / Reproductive organs / Scales / Sex ratio / Size distribution / Spawning grounds / Stock identification / Stomach content / Tagging / Trap fishing / Trolling

REGISTER: RECORD GROUP BG

BG/1/1 1950 record book titled: "Chinook and coho taggings, Ucluelet and Kyuquot" (tagging nos., locations and dates with lengths and weights).

BG/1/2 Chinook and coho tagging records (with lengths and weights) from North (Graham) Is., Sooke traps and Nile Cr., 1951-52.

BG/1/3 Chinook sampling data (lengths, weights, etc.) from Georgia Str., Fraser R. and the W. coast of Vancouver Is. (WCVI), 1951.

BG/1/4 Chinook sampling data (including sex, flesh colour and dressed weight) from Langara Is., Moricetown and Rivers In., 1951.

BG/1/5 Chinook and coho tagging records (with summary) from Winter Harbour, 1951.

BG/1/6 Chinook and coho sampling data and catch records (with size, grade and gear) for gillnet and troll landings at Prince Rupert, 1952.

BG/1/7 Chinook sampling data (including round and dressed weights) from Sooke traps, 1950-52.

BG/1/8 Chinook and coho troll and gillnet catch statistics - Vancouver and WCVI, 1952-53.

BG/1/9 Data on size, grade and catch by Area for chinook and coho landings sampled at Prince Rupert from northern Hecate Str. and North (Graham) Is., 1953-54.

BG/1/10 Chinook and coho sampling data from Georgia Str. (including Fraser R.) and WCVI, 1953.
BG/1/11 Daily coho and chinook catches by gear, 1952 and 1954.

BG/1/12 Coho and chinook catches in Georgia Str. and WCVI (Vancouver landings), 1954.

BG/1/13 Chinook sampling data (length, weight, flesh colour) from Georgia Str., Bull Hr., Fraser R. (gillnet), WCVI, Sooke trap and Namu, 1955.

BG/1/14 Lengths, weights, grading and catch records of chinook landed at Prince Rupert (1955) and Vancouver (1957).

BG/1/15 Lengths, grades and sex of coho sampled from Vancouver landings of troll, net and trap catches, 1957.

BG/1/16 Troll, net and trap catches and length frequencies for chinook from WCVI and Georgia Str./Fraser R., 1957.

BG/1/17 Coho tagging records, with lengths, weights and tag nos., for Juan de Fuca Str., 1957.

BG/1/18 Chinook and coho catch records with length frequencies (by location, species and gear), 1958.

BG/1/19 Chinook scale sampling logs from Prince Rupert landings of troll and gillnet catches, 1960.

BG/1/20 Chinook and coho sampling logs (with grades), by Areas and cannery, WCVI and Georgia Str., 1960.

BG/1/21 (1)Records of coho and tuna caught by troll for WCVI and (2)seine catches of coho off Fraser R.

BG/1/22 Chinook and coho length frequencies from WCVI, Georgia Str., Juan de Fuca Str. and Fraser R., 1959.

BG/1/23 Records of grades and mark recoveries from WCVI, 1964-65.

BG/1/24 Photo albums of "Springco Investigations", 1950-55.

BG/2/1 Stream surveys and spawning escapements of chinook and coho, with summaries of B.C. 16 stream survey forms, all Areas, 1952-54.

BG/2/2 Canadian tag returns from US catches of chinook and coho, with reward confirmations, 1959-60.

BG/2/3 "Analysis of the catches of chinook salmon captured by troll off West coasts of Vancouver and Queen Charlotte Islands (1929-?)", ca. 1949-51.

BG/2/4 Progress report nos. 1-3 for the 1958 coho sampling program in Juan de Fuca Str., 1959.

BG/2/5 Original copy of the Canadian report on the commercial coho fishery from 1951-57, by gear - 1957.

BG/2/6 Progress report on the 1957 coho study in the Juan de Fuca Str. by US and Canada, 1958.

BG/2/7 (1)Joint report on the 1957-58 coho study in Juan de Fuca Str. by Canada and US (with raw data and some draft material), 1959; and (2)"Competition in the spring salmon fishery", by Tester, with supporting data and rough drafts, 1937.

BG/2/8 Chinook tag recoveries at Pt. Grey from Georgia Str. tagging, 1956.

BG/2/9 Recoveries (by Area) of coho that were tagged in Juan de Fuca Str., 1957.

BG/2/10 Tagging records for all spp. by the "John N. Cobb" in the Umatilla Bank to Swiftsure Bank area, with subsequent recovery locations, 1955.

BG/2/11-12 Districts 1 and 2 escapement and stream survey data (all spp.), 1950.

BG/2/13 Mark recovery data (including Columbia R. marks) from Canadian and US catches of chinook and coho (mainly troll catches), 1952-62.

BG/2/14 Progress reports nos. 1 and 2 by US and Canada on coho catch and sampling in Juan de Fuca Str. (with rough drafts), 1958.

BG/2/15 (1)Seine and troll catches in Juan de Fuca Str. (with emphasis on coho); and (2)rough drafts re: history of seine and troll fishery, 1952-58.

BG/2/16 Rough draft of a report re: the 1957-58 joint coho study by US and Canada, 1959.

BG/2/17 "1956 Progress Report, INPFC" (drafts and photo negatives), 1956.

BG/2/18 Returns by US fishermen of coho tags applied by Canada in the joint coho study - tags and correspondence, 1960-64.

BG/2/19 1958 returns of coho tagged in 1957 (Juan de Fuca Str.), 1958.

BG/2/20 1959 returns of coho tagged in 1958 (Juan de Fuca Str.), 1959.

BG/2/21 "Progress report on the 1957 coho salmon study in Juan de Fuca Str. by US and Canada" (draft and finished copies), 1958.

BG/2/22 (1)Computer coding lists for the 1957-58 Juan de Fuca coho study; (2)punch card coding lists (1957); and (3)charts showing computer codes for US areas.

BG/2/23 Records of chinook tagged by Canada and recovered by US fishermen, 1957-58.

BG/2/24 Coho tag returns by US fishermen, 1962.

BG/2/25 Elapsed times between tagging of coho and their recovery, 1957.

BG/2/26 Freshwater recoveries of pinks and coho tagged off Juan de Fuca Str. in 1957, with correspondence (mainly from the INPFC), 1957.

BG/2/27 Returns by Cdn. fishermen of coho tags aplied by Canada in the joint coho study, 1957.

BG/2/28 Field report by R. Wilson giving an account of a survey of the commercial fishery at the mouth of the Fraser R. and near Vancouver Is., 1958.

BG/2/29 Salmon diseases and external parasites, with notes, photos, scale samples and correspondence (Margolis), 1952.

BG/2/30 Notes, correspondence and rough drafts of a paper on the migration of marine fishes, 1952-56.

BG/2/31 (1)Photo plates for a publication, showing the location of hatcheries in Washington State; and (2)an echogram of Lambert Chan., 1965.

BG/2/32 Lantern slide plates, 1950-53: (1)Lengths and weights, mainly of chinook from troll catches in the Skeena, Fraser and Columbia R. fisheries; (2)chinook and coho catches; (3)troll fishing areas; and (4)data from a coho migration study, showing tag recoveries from various areas on the WCVI.

BG/2/33 "D.J. Milne's Sampling of Chinook and Coho, MS Report": Text, graphs and raw data (ages, lengths and growth rates).

BG/2/34 Rough draft: "The Troll Fishery of B.C." by D.J. Milne, 1953.

BG/3/1-2 "Springco Investigations": Coho sampling data from Vancouver landings, 1951.

BG/3/3 "Springco Investigations": Chinook sampling data from Vancouver landings, Book II, 1951.

BG/3/4 Chinook and coho sampled from Kyuquot landings, 1951.

BG/3/5 Chinook and coho sampled from Ucluelet landings, 1950.

BG/3/6 Coho sampling data from WCVI and Georgia Str. (with "blueback" data), 1950.

BG/3/7 Misc. photos from "Springco Investigations", 1950's.

BG/3/8 Chinook sampling data for 1950 and 1953-56 from catches in Areas 20,23,26,29 and Georgia Strait. There is an index card for each fish with data on length, weight (dressed and round), stomach contents (species composition and quantity), age, sex, flesh colour (gradations of white to red) and gonad weight. There is some fecundity and egg diameter data also. Lure and trolling line was recorded in 1953 for a gear research study. Some escapement samples were taken in 1956 in the Fraser, Harrison and Adams Rs.

** BH **

MARK RECOVERY TO EVALUATE HATCHERY PRODUCTION OF CHINOOK

YEARS: 1962-69

SIZE: 21 boxes

DESCRIPTION

Record group BH contains data arising from a US/Canada effort to evaluate the production and contribution to fisheries of chinook released from hatcheries in the Columbia River system. Most files have mark recovery data from B.C.; some have more general catch and catch sampling data from B.C. fisheries. Other files contain mark recovery data from the entire California to S.E. Alaska region and still others have hatchery rearing and smolt release data from Oregon and Washington.

Most of the B.C. mark recoveries were obtained at the major landing ports of Vancouver, Victoria, Namu and Prince Rupert from 1964 to 1969. Besides some summaries, most of the data is on three forms. All of them show the date and location of capture and sampling, the vessel, the gear and the species. MARK RECOVERY (MR) LOGS were used to record the number and weight of each grade in the landing, the number examined for marks, the marks found and the scale sample identification numbers associated with marked fish. A MARK RECOVERY FORM was filled out for each marked chinook and has entries for fork and hypural length, whole and dressed weight, flesh colour, grade, sex, scale number and type of mark. It also has a diagram of a salmon and its fins for use in illustrating the mark. BIOLOGICAL SAMPLING SHEETS were used for un-marked samples from the landing and have provision for the same data that are on the MR Form, except there is no diagram. It has columns for scale data (total and freshwater age, "plus" growth and circuli measurements). The Biological Sampling Sheet also has spaces to note the weight and number of each grade landed and the number sampled from the landing. The form differs from the "Biological Sampling Form" in BW mainly by having provision for scale circuli data.

Key to special Area numbers used by the Spring and Coho (SpringCo) Investigation:

40 - W. coast of Vancouver Is. (Statistical Areas 21-27)

41 - Georgia Str. (13-19)

42 - Queen Charlotte Sd. (6-11)

43 - Hecate Str. (2-5)

44 - probably ocean troll off S.E. Alaska

(Note that Areas 1,12,20,28 and 29 were not grouped with other Areas.)

HISTORY/SOURCE: H. Godfrey and B. Ball

INDEX TERMS

Species

Coho / Chinook

Life Stage

Smolt / Ocean fish

Statistical Area

All B.C. Areas

Location

S.E. Alaska / Prince Rupert / Namu (8) / Queen Charlotte Str. (12) / Vancouver / Victoria / W. coast of Vancouver Is. (51-2) / Port Alberni / Washington State / Columbia system / Oregon / California

Aspect

Body size / Body weight / Catch composition / Coastal fisheries / Colour / Exploitation / Fins / Fish catch statistics / Grading / Hatcheries / Horizontal distribution / International cooperation / Landing statistics / Marking / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sex ratio / Sport fishing / Stock identification / Trolling

REGISTER: RECORD GROUP BH

BH/1/1-2 Mark recovery (MR) logs from Namu (weeks 24-33) and Prince Rupert (weeks 21-34), 1965.

BH/1/3-4 MR Forms from Namu (mark/form nos. 1-52) and Prince Rupert (mark/form nos. 1-58), 1965.

BH/1/5 Biological sample sheets (lengths, weights, ages) for Area 42 (sub-Area 12, Queen Charlotte Str.), 1965.

BH/1/6-2/17 MR Forms from Vancouver (weeks 8-43). Scale nos. 1-2668. Includes W. coast of Vancouver Is. (WCVI) catches, 1965.

BH/2/18-25 Biological sample sheets for Areas 1,12,20,23 and 40-43, 1964.

BH/3/1-5 Biological sample sheets for Areas 20,29 and 40-42, 1965.

BH/3/6 Marks recovered at Port Alberni, 1965.

BH/3/7 Weekly sampling summaries from Prince Rupert, Namu and Vancouver, 1965.

BH/3/8-9 Biological sample sheets for Areas 40 and 41, 1966.

BH/3/10-4/2 MR Logs from Namu (weeks 24-34) and Prince Rupert (weeks 22-33), 1966.

BH/4/3-4 MR Forms from Namu and Prince Rupert, 1966.

BH/4/5-5/3 MR Forms from Vancouver (scale nos. 1-2119), 1966.

BH/5/4-7/1: MR Forms, 1964:

...5/4 Prince Rupert (marks 101-294 from weeks 20-35).

...5/5 Victoria (marks 1-29 from weeks 33-36).

...5/6 Namu (marks 1-89 from weeks 23-33).

...5/7-7/1 Vancouver (marks 201-2908).

BH/7/2-4 MR Logs from Victoria (Area 42), Namu and Prince Rupert, 1964.

BH/7/5 Biological sample sheets for Prince Rupert, 1966.

BH/7/6 Miscellaneous sampling and mark data, 1964.

BH/7/7-9 Biological sample sheets for Areas 40-43, 1966.

BH/7/10-8/3 MR Forms from Vancouver (mark/form nos. 2120-3696), 1966.

BH/8/4-5 Biological sample sheets from Vancouver (by Area) and Prince Rupert (Areas 43-44), 1967.

BH/9/1-4 MR Forms and logs from Prince Rupert and Namu, 1967.

BH/9/5-11/12 MR Forms and scale samples (scale nos. 1-2124) from Vancouver, 1968.

BH/11/13-14 Biological sample sheets for Namu (Areas 40-43), 1967.

BH/12/-(entire box) MR Forms for Vancouver (mark nos. 1-2373), 1967.

BH/13/1 MR Forms for Vancouver, 1968.

BH/13/2-4 Biological sample sheets from Vancouver (Areas 40-41) and Namu (Areas 40 and 42), 1968.

BH/13/5 MR Forms and scales for "selected marks", Vancouver, 1968.

BH/13/6-7 MR Logs from Victoria (weeks 27-35) and Namu (weeks 25-35), 1968.

BH/13/8-15 MR Forms and scales from Namu (marks 1-511), 1968.

BH/14/1 [No file]

BH/14/2-19 MR Forms and scales, 1968:

...14/2 Victoria (marks 1-115).

...14/3-19 Vancouver (marks 2125-3121).

BH/15/1-16/4 MR Logs from Vancouver:

...15/1-2 1966 (weeks 8-40).

...15/3-4 1967 (weeks 1-42).

...15/5-6 1968 (weeks 16-41).

...15/7 1969.

...16/1-2 1965 (weeks 8-46).

...16/3-4 1964 (weeks 7-44).

BH/16/5-17/31 MR Forms 1969:

...16/5-11 Victoria (marks 1-121).

...16/12-7/2 Vancouver Marks(marks 1-170,944-1170).

...17/3-18 Namu (Areas 40,42,43).

...17/19-31 Vancouver (marks 171-1283).

BH/18/-(entire box) MR Forms from WDF, 1964.

BH/19/1 Columbia R. hatchery summary for chinook, 1964.

BH/19/2 MR Forms from Oregon State Game Comm., 1964.

BH/19/3-8: Computer coding sheets with data from 1964 MR Forms from:

...19/3 Columbia R.

...19/4 Prince Rupert.

...19/5 Namu.

...19/6 Victoria.

...19/7-8 Vancouver.

BH/19/9 Computer coding sheets for 1965 MR Forms from Vancouver, Namu and Prince Rupert.

BH/19/10 Report: "B.C. Recoveries - Columbia R. Chinook Mark Evaluation" (1965-67).

BH/19/11-12 Ledger: "Valid and possible marks by age" (1967-68).

BH/19/13 Computer coding sheets for MR Forms from Vancouver, Victoria and Namu, 1968.

BH/19/14 "Marking phase - Columbia R. hatchery (fall chinook) contribution study" (photos of fins, scales and hatcheries), 1966-67.

BH/19/15-16 Columbia R. hatchery records with a four year summary, 1962-63.

BH/19/17 Biological sampling sheets for marks 1-47 from Vancouver (Area 42), 1966.

BH/19/18 Biological sampling sheets for Area 43, 1965.

BH/20/1-27 Biological sampling sheets for Vancouver (Areas 29,40 and 41), 1969.

BH/20/28-35 Biological sampling sheets for Namu (Areas 40 and 42), 1969.

BH/20/36-41 Biological sampling sheets for Vancouver (Area 41), 1969.

BH/20/42-43 MR Logs from Namu troll (weeks 24-33) and Victoria troll (weeks 22-36), 1969.

BH/20/44 MR ledger: "Valid and possible marks by age" - Vancouver landings from all Areas, 1966.

BH/20/45 "Number of chinook sampled on Biological Sampling Sheets" - Vancouver landings from all Areas, with red/white chinook breakdown, 1967-69.

BH/20/46 Computer index showing date, Area and sample no. of chinook and coho sampling, 1968-69.

BH/21/1-2 Computer printout of chinook marks with B.C. recoveries, 1965-67.

BH/21/3 Computer printout showing data from MR Forms for Areas 40-44, 1964.

BH/21/4 Computer printout showing annual sampling statistics from salmon catches, with average length by month for Area 40-41 chinook, 1963.

BH/21/5 Agency 10's Area 40 catch and sampling data (by week and flesh colour), 1963.

BH/21/6-7 Catch and sampling data (report no. 1) for Areas 29 (1965) and 41 (1966).

BH/21/8 MR data for Areas 40-42, 1964.

BH/21/9 Data report on 1964 contribution of 2 and 3 yr. old fall chinook from Columbia R. hatcheries to commercial fisheries from California to Alaska and sport fisheries from California to Washington, 1966.

BH/21/10 Data report with (1)hatchery data on sampling, marking and hatchery life of 1961 brood fish and (2)mark returns in 1963. Includes a report equivalent to 21/9 but for 1963 contributions to Washington and Oregon commercial and sport fisheries. 1964.

BH/21/11 Data report on the 1966 sampling season (similar to 21/9), 1968.

BH/21/12 Data report on the 1967 sampling season (similar to 21/9), 1969.

** BI **

STUDIES OF COWICHAN SALMON

YEARS: 1950,1959-63,1965-68

SIZE: 3 boxes

DESCRIPTION

This record group has catch, tagging and sampling data from a study of Cowichan R. chinook and coho from 1965 to 1967. They trapped and marked fry and smolts in the river and seined and tagged in Cowichan Bay. Mark and tag recoveries were made during the seining and also by surveying the sport fishery in the Cowichan Bay-Saanich Inlet area. There is length, weight and scale data from freshwater juveniles and ocean fish. Chum were caught incidentally in significant numbers and one file has stomach contents data from kokanee in Cowichan Lake.

HISTORY/SOURCE: H. Sparrow and H. Godfrey

INDEX TERMS

Species

Chum / Coho / Chinook / Kokanee

Life Stage

Fry / Smolt / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

18 (Cowichan)

Location

Cowichan system (18) / Cowichan L. (18) / Cowichan Bay (18) / Saanich In. (18)

Aspect

Abundance / Aerial photography / Age composition / Angling / Body size / Body weight / Catch composition / Experimental fishing / Marking / Purse seining / River discharge / Scale reading (Circuli measurements) / Scales / Sex ratio / Size distribution / Sport fishing statistics / Stomach content / Tagging / Trap fishing / Water depth / Water temperature

REGISTER: RECORD GROUP BI

BI/1/1-2 Cowichan R. chinook, coho and chum - trap catches and fry migration records, water temperatures and discharges, 1965.

BI/1/3 Lengths and weights of Cowichan R. coho, chum and chinook fry, April-Sept., 1965.

BI/1/4 Data from scales that were collected during tagging of chinook in Cowichan Bay (by tag no. and date), 1965.

BI/1/5 Length and weight frequencies and mean lengths and weights of coho and chinook from Cowichan Bay, 1965.

BI/1/6 Misc. data from Cowichan R. (1965) and a sports fishing summary (1959-63).

BI/1/7 Water temperatures and levels in Cowichan R., 1965-68.

BI/1/8 Lengths and weights of coho and chinook fry and smolts and chum fry from Cowichan R., 1966.

BI/1/9 Purse seine catches in Cowichan Bay for chinook, chum and "other", 1966.

BI/1/10 Length frequencies of juvenile coho in Cowichan Bay, 1966.

BI/1/11 Lengths and weights of chinook and coho in Cowichan Bay, 1966.

BI/1/12 Mark Recovery (MR) forms and scales for chinook and coho from the Cowichan Bay sport fishery, 1966. MR Forms have recovery and sampling data (lengths, weights, ages, etc.).

BI/1/13 Chinook lengths from Cowichan Bay seining, 1967.

BI/1/14 MR Forms and scales for chinook and coho from the Saanich In. and Cowichan Bay sport fisheries, 1967.

BI/1/15 Purse seine catches and length data for coho, chinook and chum in Cowichan Bay, 1967.

BI/1/16 Chinook lengths and scale cards from Cowichan Bay samples, 1967.

BI/1/17 Scale data (circuli measurments and counts) with lengths and ages from Cowichan Bay samples of chinook, 1967.

BI/1/18 Records of fish collections from Cowichan R., with lengths of adult and juvenile coho, chinook and chum, 1967.

BI/1/19 Weights and lengths of juvenile chinook from Cowichan R. (Dept. of Fisheries data), 1966.

BI/2/1 Length frequencies of juvenile chinook from Cowichan R. and Bay, 1967.

BI/2/2 Trapping and fin clipping of juvenile chinook and coho, 1967.

BI/2/3 Coho and chinook - scale cards and tagging records, 1966.

BI/2/4 Air photos of Cowichan Bay and estuary, 1950 and 1966.

BI/2/5 Thermographs for Cowichan R., 1965-67.

BI/2/6 Date books and diary from the Cowichan study, 1965-66.

BI/2/7-8: Notebooks from surveys of juvenile coho, chum and chinook in Cowichan R.:

...2/7 Numbers, sex composition and stomach contents (by date and station), 1966.

...2/8 Fry migration data, lengths and weights, trap catches and marking records, 1965-67.

BI/2/9 Chinook scale data (adults and juveniles), adult tagging data and sport catch statistics, Cowichan Bay, 1965-67.

BI/2/10 Data on stomach contents of kokanee from L. Cowichan, 1965.

BI/2/11 Coho and chinook catch records and sampling data from Cowichan Bay, 1965-67.

BI/2/12-15 Diaries and experimental fishing and tagging records, Cowichan R. chinook and coho, 1965-67 (by year).

BI/2/16 Experimental fishing and tagging records, Cowichan Bay chinook and coho, 1967.

BI/3/1 Records of chinook and coho tagging in Cowichan Bay, 1966.

BI/3/2 Lengths of tagged chinook and coho that were recovered in Cowichan Bay, 1965.

BI/3/3 Chinook and coho scale data (summary of scale characters by age, area and length), Cowichan Bay, 1965.

BI/3/4 Chinook and coho lengths by date of sample, Cowichan Bay, 1965.

BI/3/5 Cowichar Bay tagging - chinook and coho catch and release records and scale, length and weight data, 1966.

** BK **

COHO AND CHINOOK DATA, LARGELY FROM MARINE SOURCES

YEARS: 1924-75 and 1979

SIZE: 6 boxes

DESCRIPTION

"BK" was provided by H. Godfrey and is largely marine data on coho and chinook. There is (1)data on commercial catches in B.C. and Alaska, with sampling data; (2)data on tagging and marking, on juvenile releases and on subsequent catches and mark recoveries - all related to evaluating the production of Columbia R. and Puget Sd. hatcheries; (3)tagging and tag recovery records from Wash., B.C. and Alaska (with sampling data) spanning 1925 to 1974; (4)High Seas sampling, tagging, catch and CPUE data for coho; and (5)data from a salmon ecology study in Georgia Str. (ca. 1972) with sport and experimental fishing catches, tagging records, sampling data, notes and bibliographies.

There are also some data which include non-marine sources, e.g. (1)scale measurements of chinook adults from the Fraser, Big Qualicum and Puntledge Rs. and measurements of scales from chinook smolts (comparing "ocean" and "stream" life history types); (2)sampling data from test fishing on the Fraser, Nass and Skeena Rs.; and (3)length/weight relationships for coho smolts from various B.C. streams. Other, miscellaneous, files have ages of chinook from northern B.C. and the Yukon, an account of Asian transplants of coho, hypural/fork length conversion data for chinooks, fecundity/length relationships, data on red vs. white chinooks and information from the US/Canada study of the distribution and movements of coho in Juan de Fuca Str. (ca. 1957-58).

Note: References are made to Areas 40-43. These are general areas of the B.C. coast which were used by Godfrey et al. and correspond to the Department's management Areas like this: Area 40 = W. coast of Vancouver Is., Areas 21-27; Area 41 = Georgia Str., Areas 13-19; Area 42 = central coast, Areas 6-11; and Area 43 = N.coast, Areas 2-5.

HISTORY/SOURCE: H. Godfrey, D. Milne and R. Ball

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Fish / Plankton

Life Stage

Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

All B.C. Areas / Yukon River / Alsek-Taku-Stikine

Location

High Seas / Asia / S.E. Alaska / Yukon system / Nass system (3) / Skeena system (4) / Vancouver Is. (51) / E. coast of Vancouver Is. (51-1) / Puntledge R. (14) / Qualicum (Big Qualicum) R. (14) / Gulf (San Juan) Islands (17-18) / Georgia Str. (50) / Juan de Fuca Str. (19-20) / W. coast of Vancouver Is. (51-2) / Fraser system (29) / Mission / Cape Flattery (Wash.) / Puget Sd. (Wash.) / Washington State / Oregon / Columbia system / California

Aspect

Age composition / Annual variations / Bibliographies / Body size / Body weight / Catch composition / Catch/effort / Coastal fisheries / Colour / Experimental fishing / Fecundity / Fish catch statistics / Fishery regulations / Fishing effort / Gear research / Gillnetters / Hatcheries / Historical account / Horizontal distribution / Ichthyoplankton / International cooperation / Length-weight relationships / Marine fish / Marking / Methodology / Migrations / Plankton / Purse seining / Regional variations / Regression analysis / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sexual maturity / Sport fishing statistics / Stocking (Organisms) / Stomach content / Tagging / Taxonomy / Test fishing / Trap fishing / Trolling / Yield

REGISTER: RECORD GROUP BK

BK/1/1-2 Coho and chinook - B.C. catches by Area and gear (in pcs.) and annual average weights by Area and gear, 1951-71.

BK/1/3-4 "Lengths and Ages of Chinook Salmon Taken in the B.C. Troll Fishery and the Fraser R. Gillnet Fishery" (Ball and Godfrey), Areas 1,40-43, and 29, 1964-5.

BK/1/5 A coho study by the Salmonid Enhancement Program in the Nass and Skeena Rs. and Northern B.C. areas, ca. 1979.

BK/1/6 Columbia R. hatchery evaluation: California recoveries of pinks, coho and steelhead that were marked by the Oregon Fisheries Commission (O.F.C.), 1957.

BK/1/7 Coho tagging records, 1956-70.

BK/1/8 Gillnet catches of coho by US vessels on the High Seas (H/S) - combined ages by area, 1962-70.

BK/1/9 Draft report: "Coho salmon in offshore waters", with related correspondence (US, Canada and Japan), 1972-73.

BK/1/10 Computer coding sheets with coho sampling data from H/S catches by US and Japan, 1965-70.

BK/1/11 Coho taggings by Japanese research vessels, with recoveries shown on charts, 1963-65.

BK/1/12 Coho maturity and food studies (by A. Prakash) with procedural guidelines and data on stomach contents and gonad weights, 1957-58.

BK/1/13 Chinook catches (in lbs.) by Area and gear, 1951.

BK/1/14 Canadian catch statistics for chinook and coho, with fishing days and CPUE data, 1951.

BK/1/15 Reports on US taggings in Calif., Oregon and Wash., 1944-64.

BK/1/16 US and Canadian landings of chinook and coho, with tag recovery data, 1951-64.

BK/1/17 US taggings of coho and chinook (with bibliography), 1962-64.

BK/1/18-19 "Chinook and Coho Production Evaluation Program - Special Submission", 1975.

BK/2/1-8 [No files]

BK/2/9 Report: "Red and White Springs in B.C. (Fraser R.)", with related data, 1975.

BK/2/10 Scale measurements of "ocean", Georgia Str. and Fraser R. chinook, 1959-61.

BK/2/11 [No file]

BK/2/12 Scale measurements of marked coho from hatcheries on Vancouver Is., 1967, and Puget Sd., 1964.

BK/2/13 Scale measurements and sampling data from chinook smolts captured in the Fraser R. at Mission, 1965.

BK/2/14-16 Scale measurements of stream and ocean type adult chinook, 1966: Puntledge R. (ocean type); Fraser R. test fishing samples (ocean type); and Fraser R. test fishing samples (stream type).

BK/2/17 Chinook catches for "mixed troll" in S.E. Alaska and B.C., 1961-65.

BK/2/18 Coho recoveries from Department of Fisheries tagging in Georgia Str., 1964.

BK/2/19 MS Rep. No. 967: "Nass, Skeena and Fraser R. Chinook (1964-66)", 1968.

BK/2/20 Annual troll catches of red and white chinook, 1964-74.

BK/2/21-22 Rough draft: "Review of the occurence of red and white-fleshed chinook salmon in B.C." (Fraser R. and the W. coast of Vancouver Is.).

BK/2/23 Linear regressions of fecundities on hypural lengths for red chinooks from the Fraser and Skeena Rs., 1964-65.

BK/2/24 Scale cards and measurements, with lengths and weights, from chinook fry and smolts at Big Qualicum R., 1965.

BK/3/1 Fraser R. chinook smolts from Mission - sampling data and scales, 1965.

BK/3/2 Troll catches of coho from S.E. Alaska and B.C., 1961-65.

BK/3/3 Adult chinook from Big Qualicum R.: Widths and circuli counts of freshwater zones in scales, 1961-65.

BK/3/4 Report drafts and data on chinook salmon, 1964-66: (1)Log-log regressions of fecundity on hypural lengths, etc.; and (2)hypural length-fork length relationships.

BK/3/5 Analyses of the stomach contents of chinook and coho, with summary and conclusions, 1939-41.

BK/3/6 "Chinook salmon migration": Rough draft and data for a Bulletin by W.A. Clemens, 1927-29.

BK/3/7 Lengths and weights of coho and chinook from B.C. catches, 1964.

BK/3/8 Average weekly troll catches of chinook on the W. coast of Vancouver Is. (WCVI), 1951-53.

BK/3/9-10 H/S coho catches by INPFC research vessels: Japan (1963) and US and Canada (1961-70).

BK/3/11 Annotated bibliography of documents related to Georgia Str. investigations, 1968-71.

BK/3/12 Chinook and coho troll catches (in lbs.), by Areas in Georgia Str., 1951-71.

BK/3/13 [No file]

BK/3/14 CPUE data for coho that were caught by gillnets in the Japanese mothership fishery, with some US and USSR statistics, 1965-70.

BK/3/15 Coho transplants in Asia, 1962-70.

BK/3/16 Ages of H/S coho caught by US research vessels, 1962-66.

BK/3/17 Rough draft: "Migration of Coho Salmon".

BK/3/18 H/S coho catches recorded on computer coding sheets: US gillnets, 1964; Canadian gillnets, 1967; and Japanese catches.

BK/3/19 "Efforts, catches and CPUE of Japanese mothership fishery by area, month and year for coho, 1962-70", 1970-71.

BK/3/20 Misc. data on coho catches in the N. Pacific by Canada, US and USSR, 1962-70.

BK/3/21 H/S coho catches by US and Canada, 1962-70.

BK/3/22 H/S coho catches, by gear for US and Japanese research vessels, 1962-70.

BK/4/1-14 [No files]

BK/4/15-18: Columbia R. and Puget Sd. hatchery releases:

...4/15 Nos. and weights of coho smolts, with Canadian catches off WCVI, 1958-72.

...4/16 Nos. and weights of fall chinook that were released, with plots of annual average smolt weights for late releases, 1961-72.

...4/17 Nos. of spring and fall chinook that were released, with catch and mark recovery data from Cdn. waters, 1958-74.

...4/18 Nos. and mean weights of coho smolts, by brood year, and late release data, 1958-72.

BK/4/19 Coho tagging locations in Canada and the US and recovery locations in Canada, 1972-73.

BK/4/20-21 Misc. information on sampling, tagging, marking, coding, etc. (procedural directions), 1971-73.

BK/4/22 Lengths, weights and scale data from catches of all spp. by the "Sharlene K", W. coast Vancouver Is., 1969.

BK/4/23 Fishing in Georgia Str.: Net fishing records, by vessel, and angling records (lures used and the catches), 1972-73.

BK/4/24 "Purse seine information".

BK/4/25 Marked chinook recoveries from Area 42 (central coast) gillnet and purse seine fisheries, 1964-68.

BK/4/26 "Further tag recoveries from 1972-73 tagging" of coho and chinook, 1974.

BK/4/27 "Marking and Tagging of Coho and Chinook by Canada (1925-58)", text with raw data, 1964.

BK/4/28 Misc. notes (with some data) on all salmon spp.

BK/4/29 Coho scale measurements and sampling data sheets from Areas 14-23, 1971.

BK/5/1 Historical survey of coho and chinook tagging, marking and recovery by US and Canada (rough draft with data), 1927-59.

BK/5/2 Length frequencies and food analyses from pelagic seining of larval and juvenile fishes, 1974.

BK/5/3 Ratfish stomach contents from spring cruises by "G.B. Reed", 1974.

BK/5/4 Misc. notes on Georgia Str. investigations, taxonomy of plankton and other fish food and "Common and scientific names of estuarine fishes".

BK/5/5-7 Original chinook and coho catch and sampling data from the "Caligus", "Tahlok" and "R.D. 104", E. coast of Vancouver Is., 1974.

BK/5/8 Chinook and coho stomach sampling data, 1972.

BK/5/9 Saltwater sport fishery sampling, 1972.

BK/5/10 M.V. "Hourston" troll records for the Gulf Islands and Georgia Str., 1973.

BK/5/11 Records of tagging chinook and coho from the "Caligus" (catches, lengths and weights), E. coast of Vancouver Is., 1972.

BK/5/12 "Statistical summary of chinook salmon test fishing on the Nass, Skeena and Fraser Rs.": Annual catch sampling data with age frequencies by sex and colour, 1964-66.

BK/5/13 Length/weight relationships for coho smolts from various B.C. streams, 1970.

BK/5/14-15 Stomach contents sampling data for chinook and coho catches by "Melibe" in the Brentwood Bay to Departure Bay area, Books I and II, 1972

BK/5/16-17 Sampling data (lengths, weights, etc.) and scales for chinook and coho caught by "Caligus", "Melibe" and "Remora" in Areas 17 and 18, 1972-73.

BK/5/18 Historical survey of chinook and coho tagging on WCVI, 1925-52. Includes mature-immature ratios.

BK/5/19 Sport fishery regulations for chinook and coho in Georgia Str., 1964.

BK/5/20 International chinook and coho salmon committee: Troll and net catches, 1965(?).

BK/5/21 Catches and mark recoveries of chinooks in the Puget Sd. sport and commercial fisheries (year unknown).

BK/5/22 Coded wire tagging of 1969-73 brood year chinooks, by hatchery, for the Wash. coastal hatcheries, 1974(?).

BK/6/1 [No file]

BK/6/2 B.C. Tidal Sport Salmon Catch Statistics, 1964-74.

BK/6/3 Annual progress reports for 1957-59, describing the US and Canadian coho study in Juan de Fuca Str.

BK/6/4 "Silver Salmon Tagging at Cape Flattery, 1945" (by W.H. Bayliff), 1953.

BK/6/5 Age compositions of several chinook stocks in northern B.C. and the Yukon, 1972-78.

BK/6/6 S.E. Alaska salmon tagging experiments, 1924-58.

BK/6/7 Joint US/Canadian report: "Juan de Fuca Coho" (re: coordination of regulations), 1957.

BK/6/8 Sports fishery advisory: "Information on the Sizes and Locations of Stocks of Chinook and Coho in B.C.", 1963.

BK/6/9 "Annual Pacific Marine Fisheries Commission Meeting", 1964.

BK/6/10 Oregon Fisheries Commission (O.F.C.): Tabulation of marks recovered by or reported to O.F.C. (various species), 1958.

BK/6/11-12 "Summary of Mark Recoveries Reported to the O.F.C. and Salmon Sampling Information from the Columbia R. and Oregon Ocean Troll" (with computer codes), 1959-60.

BK/6/13 "Actual and calculated marks recovered in the Oregon troll fishery, 1958-59.

** BL **

PORT JOHN DATA

YEARS: 1947-62, 1967

SIZE: 2 boxes

DESCRIPTION

BL is largely records from fences on the Hooknose Cr. system which flows into Port John in Area 8. This system was studied by FRB from 1947 to 1962 and again in 1967 by Hunter, Neave, Parker and Bams. There was a main fence at the mouth of Hooknose Cr. and usually another at Tally Creek. Tally Cr. flows into Port John L. which is at the head of Hooknose Creek. There are counts and sampling data for juveniles and adults of all salmon species except chinook and for other anadromous and resident fish. There are also: (1)Marking and tagging data related to predation studies and studies of life expectancy of spawners; (2)limnological, experimental fishing and tagging data from Port John L.; (3)stomach contents information; (4)weather records and stream temperature and level data; (5)aerial photos of the area; and (6)some scale samples. Other Record Groups also have data from this study (e.g. Record Group AX).

HISTORY/SOURCE: J. Hunter, F. Neave, R. Parker and R. Bams

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Steelhead / Fish

Life Stage

Fry / Smolt / Juvenile / Mature / Age unspecified or non-applicable

Statistical Area

8 (Bella Coola)

Location

Hooknose Cr. (8) / Port John L. (8) / Tally Cr. (8)

Aspect

Aerial photography / Age composition / Body size / Body weight / Catch composition / Catch/effort / Diurnal variations / Egg retention / Escapement / Experimental fishing / Fecundity / Freshwater fish / Jacks / Limnological data / Line fishing / Marking / Migrations / Natural mortality / Population number / Predation / Scales / Sex ratio / Stomach content / Survival / Tagging / water depth / Water temperature / Weather conditions / Weirs

REGISTER: RECORD GROUP BL

BL/1/1-12: Field record books from Port John. Note: (1)All counts are fence counts and also include non-salmon species such as steelhead, lamprey, trout, char and sculpins. (2)There were two fences in most years, one on Hooknose Creek. near tide water, and one on Tally Cr., a tributary to Port John L. which is drained by Hooknose Cr. Counts at Hooknose Cr. included sockeye, chum, pinks and coho; Tally Cr. and other fences at the lake had primarily sockeye and coho. (3)"Juvenile counts" of sockeye and coho encompass both fry and smolts:

...1/1-2 Hooknose Cr. adult counts with ancilliary data (lengths and weights, sexes, dead counts, fecundities, egg retentions, jack counts), 1961-2.

...1/3 Juvenile counts, Tally Cr., 1953.

...1/4 Juvenile counts with mortality records, Hooknose and Tally Crs., 1952.

...1/5 Juvenile counts and thread-tagging data for sculpins and smolts, Hooknose and Tally Crs., 1954.

...1/6 Juvenile counts, Hooknose and Tally Crs. (including a count of pink fry in Tally Cr.), 1955.

...1/7 (1)Hooknose Cr. juvenile and adult counts, with data on coho smolt predation and sculpin marking; and (2)Tally Cr. juvenile and adult counts. Adult fence data include jack counts, coho fecundities, dead-unspawned counts, dead-on-fence counts and life expectancy data for chum spawners, 1956.

...1/8 Hooknose and Tally Crs. juvenile counts, with predator counts and sampling data by species, 1957.

...1/9-12 Annual record books with Hooknose Cr. juvenile and adult counts and data on size, sex and stomach contents of predators, 1958-61.

BL/1/13 Tables of Hooknose Cr. juvenile and adult counts, with marking data, 1961.

BL/1/14 Data from Hooknose Cr. predator surveys, including upstream and downstream fence counts of Dolly Varden and cutthroat trout, 1947-62.

BL/1/15-2/1: Field books (cont'd.):

...1/15 Sampling and marking/mark recovery data for fish in Port John L., 1949-52.

...1/16 Fence counts in 3 tributaries to Port John L., with creek temperatures and levels, stomach analyses (related to predation in streams), mortality records, juvenile sampling data for sockeye, coho and non-salmon and angling results, 1949.

...1/17 (1)Marking data for a study on migration of juvenile sockeye, pinks, chum and coho; and (2)sculpin counts and mortality records by species, 1948.

...1/18 Hooknose Cr. juvenile counts with some trout lengths, 1949.

...1/19-21 Juvenile counts at Hooknose Cr. and Port John L. (Tally Cr.?), with sampling data and notes on predation, 1950.

...1/22 Juvenile counts, Hooknose Cr., 1951.

...1/23 Hooknose Cr. juvenile counts, with data from a predator survey and a thread marking experiment, 1953.

...1/24 Hooknose and Tally Cr. juvenile and adult counts, with lengths, weights and sex, 1967.

...2/1 Hooknose Cr. and "lake" (Tally Cr.?) adult counts, with fecundities, mortalities and sexes, 1948.

BL/2/2 Purchase orders, recquisitions etc. for operation of Port John camp, 1955-58.

BL/2/3 Fence counts and records of coho fry and smolts that were marked for migration studies, 1948-62.

BL/2/4 Daily fence counts of adult coho at Tally Cr., 1948-60.

BL/2/5 Counts and summaries of adult coho in Hooknose Cr., 1947-62.

BL/2/6 Fecundity vs. length of chum at Port John, 1950-1961.

BL/2/7 Physical limnology data, Port John L., 1949.

BL/2/8 Recorder charts showing temperatures in Hooknose Cr., 1951-61.

BL/2/9 Water temperatures in Port John L., Tally Cr. and Hooknose Cr., 1951-61.

BL/2/10 Air photos of the Port John area, 1947.

BL/2/11-13: Scale samples from Port John:

...2/11-12 Chum (1948-49).

...2/13 Steelhead (1949).

BL/2/14 Nine field books from Port John: (1)Twice daily water and weather measurements, 1951-52; (2)netting experiments in Hooknose Cr. showing hourly catches of fry and smolts, 1953; (3)daily downstream counts from Tally and Hooknose Cr. fences (sockeye, coho, pinks, chum, steelhead, rainbow, Dolly Varden, cutthroat, sculpins, lamprey) and data on the predation by sculpins on fry (stomach contents, lengths and sexes of fence-caught sculpins), 1959.

** BM **

MICROFILMED CATCH STATISTICS (1947-60)

YEARS: 1947-60

SIZE: 2 Boxes

DESCRIPTION

These boxes contain microfilms of catch statistics for the B.C. commercial fishery. Catches include various marine fish and marine invertebrates besides salmon. The statistics for a year are organized in several ways but are usually biven by gear and Area. Some seine and troll catches of salmon are given by fishing vessel and fisherman, respectively.

HISTORY/SOURCE: V. Aro(?)

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Fish / Other

Life Stage

Ocean fish / Mature

Statistical Area

All B.C. Areas

Location

Alaska

Aspect

Beach seines / Coastal fisheries / Fish catch statistics / Fishermen statistics / Fishing vessel statistics / Gillnets / Landing statistics / Longlining / Marine crustaceans / Marine fish / Marine molluscs / Microforms / Purse seining / Shellfish catch statistics / Trawling / Trolling

REGISTER: RECORD GROUP BM

BM/1/1-31: 1951 catches (Areas are in parentheses):

...1/1-10 Troll (1,3-17 and 23-26).

...1/11 Troll (26-29) and gillnet (1-3).

...1/12-27 Gillnet (3-29D).

...1/28 Gillnet (29D) and seine (7-13).

...1/29 Seine (13) and longline (2BE and 23).

...1/30 Seine (various Areas) and catches of shellfish and herring (12 and 14).

...1/31 Misc. catches from gillnetting (8), seining and other gear (some statistics are unpublished).

BM/1/32-35: 1950 catches (Areas are in parentheses):

...1/32 Troll (3 and 4) and gillnet (3).

...1/33-34 Gillnet (3 and 4).

...1/35 Gillnet (4) and seine, shellfish and herring catches.

BM/1/36-58: 1952 catches (Areas are in parentheses):

...1/36 Troll (C,1,2AE and 2AW), including tuna catches.

...1/37-44 Troll (2AW,2BE and 2BN-25).

...1/45 Troll (25-28) and gillnet (1-3).

...1/46-56 Gillnet (3-29D).

...1/57 Gillnet (29D-29E) and seine (1-6).

...1/58 (1)Seine (6); (2)catches of anchovy, shiners, smelts and herring;

(3)beach seine catches (17); and (4)longline (1-12).

[Note: Index numbers on the boxes of microfilm indicate that three boxes are missing at this location.]

BM/1/59-82: 1953 catches (Areas are in parentheses):

...1/59-66 Troll (C,1, and 3-27).

...1/67 Troll (27) and gillnet (3).

...1/68-80 Gillnet (3-29B and 29D).

...1/81 Gillnet (29D), seine (1-12) and catches of eulachon, smelts and herring.

...1/82 Seine (12-20) and catches of herring, anchovies, etc.

[Note: Index numbers on films indicate that 5 boxes are missing here]

BM/1/83-108: 1954 catches (Areas are in parentheses):

...1/83-89 Troll (2AE-25).

...1/90 Troll (25-27) and gillnet (1-5).

...1/91-104 Gillnet (3-29C).

...1/105 (1)Gillnet (29C-29D); (2)catches of eulachon,smelt and herring; and (3)seine catches (ordered alphabetically by vessel name) up to "Betty G".

...1/106 Seine catches by vessel - "Blanch Irene" to "Manhattan No. 2".

...1/107 (1)Seine catches by vessel - "Manhattan No. 2" to the end; and (2)clam catches (17).

...1/108 Catches of clams and shrimp (17) and catches of crabs, oysters and herring.

BM/1/109-2/12: 1955 catches (Areas are in parentheses):

...1/109-113 Troll (C and 1-25).

...2/1 Troll (25-30) and gillnet (1-3).

...2/2-9 Gillnet (3-29B).

...2/10 Gillnet (29B-29D) and catches of abalone and clams (up to Area 12).

[Note: One index number is missing here]

...2/11 (1)Seine catches by vessel, ordered alphabetically up to "San Juan II"; (2)seine and gillnet catches of herring; (3)beach seine catches of eulachon; (4)gillnet and seine catches of smelt; and (5)trawl catches.

...2/12 Seine catches by vessel - "San Juan II" to the end.

BM/2/12-30: 1956 catches (Areas are in parentheses):

...2/12 (cont'd)Longline (Alaska and 1-4) and trawl.

...2/13 (1)Seine catches by vessel; (2)misc. seine catches; (3)dog fish catches (1954-56); and (4)longline catches of Halibut (US).

[Note: One index number is missing here]

...2/14 Area histories (1951-54).

...2/15-19 (1)Troll catches, ordered alphabetically by fisherman's name from A to T; and (2)in file 2/17, Area summaries for troll catches (13-20).

...2/20 (1)Troll catches by fishermen from T to Z; (2)misc. troll catches (28-29C); and (3)gillnet (1-32).

...2/21-27 Gillnet (4-29B).

...2/28 (1)Gillnet (29B-29D); (2)beach seine catches of eulachon; (3)gillnet catches of herring; and (4)late troll catches (16).

...2/29 (1)Late troll catches; (2)catches of abalone, clams, crabs and shrimp; and (3)seine catches of herring (1).

...2/30 Trawl and seine catches of herring and catches of oysters, dog fish and halibut.

BM/2/30-45: 1957 catches (Areas are in parentheses):

...2/30 (cont'd)Catch summaries and gillnet catches (1 and 3).

...2/31-36 Gillnet (3-29C).

...2/37 Gillnet (29C-29D) and troll (1-3).

...2/38-42 Troll (3-26).

...2/43 (1)Troll (26 to the "end"); (2)seine catches of dog fish; (3)gillnet catches of herring, smelt and eulachon; (4)seine catches by vessel ("Active Pass" to "Johanna"); and (5)longline catches (up to Area 5).

...2/44 Seine catches by vessel ("Johanna" to the end) and crab and shrimp catches.

...2/45 Shrimp, crab, oysters and herring catches and misc. sales slips from gillnet landings.

BM/2/45-63: 1958 catches (Areas are in parentheses):

...2/45 (cont'd)Summary of longline catches (Alaska and 1-2BE).

...2/46 Longline (2BE-30) and smelt, herring, dogfish, eulachon and halibut catches.

...2/47-51 Troll (1-24).

...2/52 Troll (24-30) and gillnet (1-3).

...2/53-61 Gillnet (3-29D).

...2/62 Gillnet (29D) and seine (1-12).

...2/63 Seine (12-26), troll (24-26) and oyster, herring and clam catches.

BM/2/64 PBS statistics of herring deliveries (by company), 1947-59.

BM/2/65-66: 1959 catches (Areas are in parentheses):

...2/65 (1)Seine (12-20); (2)trawl catches; (3)seine catches of herring; (4)troll catches of tuna; (5)gillnet catches of herring, smelts and eulachon; and (6)shellfish catches (1-5).

...2/66 Gillnet (9,16,27 and 29D) and seine (1-12).

BM/2/67-68: 1960 catches (Areas are in parentheses):

...2/67 Gillnet (29B-29D) and seine (1-7).

...2/68 Seine (7-27) and longline (Alaska and 1-12).

** BO **

HIGH SEAS ZOOPLANKTON DATA

YEARS: 1955-78

SIZE: 3 boxes

DESCRIPTION

This is a collection of files with plankton catch data, the emphasis being on zooplankton. The data were largely collected in 1955-63 as part of the High Seas Salmon Program and in later years from the weatherships at Station 'P'. The catches are usually presented as weights of each major component and the proportions these weights represent of the whole. A component would be copepods, for example. Other files have more detailed data, where the number and body size of species within the components are given. A few files do not contain plankton data. For example, one has data on stomach contents of whales, another has echograms and a third has angling logs from weatherships at Station 'P'.

HISTORY/SOURCE: Unknown

INDEX TERMS

Species

Fish / Plankton / Other

Life Stage

Age unspecified or non-applicable

Statistical Area

21-22 (Nitinat)

Location

High Seas / Station 'P' / Swiftsure Bank (21)

Aspect

Angling / Aquatic mammals / Body size / Body weight / Catch composition / Coastal zone / Echo surveys / Glossaries / Ichthyoplankton / Marine ecology / Pelagic environment / Phytoplankton / Salinity / Size distribution / Stomach content / Water temperature / Weather ships / Wet weight / Zooplankton

REGISTER: RECORD GROUP BO

BO/1/1-10: Key punch form for computer card 1 of "zooplankton summary" data. Card 1 has data on (1)the tow/haul (time, place, type of gear, length and angle of wire, no. of revolutions on net meter and volume sampled); (2)temperature and salinity; and (3)weights in the sample of different components (copepods, euphausiids, etc.):

...1/1 "Challenger" cruises I-III, 1956.

...1/2 Cruises 1 and 2 by vessels 61 and 62, 1955-56.

...1/3 Cruises 2-4 by vessels 61 and 62, 1956-57.

...1/4 Cruises 4-6 by vessel 62, 1957.

...1/5 Cruises 6-9 by vessel 62, 1957-58.

...1/6 Cruises 9-11 by vessels 62 and 33, 1958.

...1/7 Cruises 11-13 by vessels 32 and 62, 1958-59.

...1/8 Cruises 14-16 by vessels 32 and 33, 1959.

...1/9 "Key West II" cruises I-III, 1956.

...1/10 "Key West II" VPH (vertical plankton haul?), 1960.

BO/1/11-15: Card 1 data (as in files 1/1-10) from vessel 32 ("Oshawa"):

...1/11 Cruise N-26, C-60-2 VPH (150m), 1960.

...1/12 Cruise N-21, C-60-4 VPH, 1960.

...1/13 Cruise N-19, NP-60-3, 1960.

...1/14 Cruise N-22, SW-61-1, 1961.

...1/15 Cruise N-24, NP-61-1 VPH and HPT (horizontal plankton tow?), 1961.

BO/1/16-27: Card 1 data (as above):

...1/16 Cruises I-IV by "Fort Ross", 1957.

...1/17 "Fort Ross" cruise IV (cont'd) and cruises I-III by "Key West", 1957.

...1/18 Cruises I and II by "Fort Ross", 1958.

...1/19 "Fort Ross" cruise II (cont'd) and cruises I-IV by "Key West", 1958.

...1/20 Cruises I-III by "Fort Ross", 1959.

...1/21 HPT by "Fort Ross", 1960.

...1/22-24 HPT, MWT (mid-water tow?) and VPH by "Fort Ross", 1961.

...1/25 VPH by "Western Crusader", 1961.

...1/26 Cruise N-25 by vessel 34, NP-61-2 VPH and HPH, 1961-62.

...1/27 Cruises N-17 and N-18 by vessels 33 and 63, NP-60-1 and NP-60-2 VPH and HPT, 1960.

BO/1/28-35: Card 1 data (as above) and key punch forms for cards B-E. The latter have data to identify the samples, where and when they were taken, the type of gear, the depth of the haul or tow and the total sample weight (like in card 1). The new data show the size and number of each species in each component of the sample (e.g., size and number of Calanus cristatus in the copepod component):

...1/28-31 Cruises 1-4 by vessel 4, 1963.

...1/32-35 Cruises 1-4 by vessel 5, 1963.

BO/1/36 Rough log of zooplankton catches (year unknown).

BO/2/1-7: Key punch data for cards 1 and B-E (as in files 1/28-35):

...2/1-3 Cruises I,II and IV by vessel 11, 1964.

...2/4 Cruise 29 by vessel 32, 1962.

...2/5 Cruise 29 by vessel 33, 1962.

...2/6 Cruise 1 by vessel 61, 1964.

...2/7 Cruise 1 by vessel 80, 1964.

BO/2/8 Zooplankton weights and other raw data, mainly from the "Fort Ross", 1958-59.

BO/2/9 Zooplankton data from coastal (e.g. Swiftsure Bank) and High Seas areas, 1957-58.

BO/2/10 Master log from the "Fort Ross", 1961.

BO/2/11 Card 1 data and master log from the "Western Crusader", 1961.

BO/2/12 Zooplankton data from High Seas cruises NP-1-60, NP-60-2, NP-60-3 and F-7-60, 1960.

BO/2/13 Card 1 data from cruise N-23 by vessel 32, MR-61-1 vertical haul, 1961.

BO/2/14 Key punch data for cards B-E (unidentified).

BO/2/15 Master plankton logs from the "Fort Ross", with zooplankton weights, 1960.

BO/2/16 Record of zooplankton collections at Station 'P', 1960.

BO/2/17 Log sheets for horizontal plankton hauls, 1958.

BO/2/18
1961) and "A.P. Knight" (1961).

BO/2/19 Card 1 data from vertical hauls by vessel 31 ("Book II"), 1958-59.

BO/2/20-26: Station 'P' data:

...2/20 Depth recorder charts, labelled P-66-3, 1966(?).

...2/21 ERG (Environmental Research Group) plankton logs and plankton sample sheets, 1975.

...2/22 Plankton logs, 1961.

...2/23 "Biological observations" with record of 120 samples - cruise 71-002 by "Quadra", 1971.

...2/24 Card 1 data ("Book I") from vessel 31, 1956-58.

...2/25 Card 1 data from weathership cruises P58-4, P59-1 to P59-5, and P61-1 to P61-5 in 1958-59 and 1961.

...2/26 Card 1 data, 1960.

BO/2/27 Data on stomach contents of whales, 1963.

BO/2/28 C.O.I.C. "abbreviations for analysis" sheets, 1966-70.

BO/2/29 Angling logs from weathership at Station 'P', 1979.

BO/2/30 Card 1 data from the "Challenger", May to June, 1960.

BO/2/31 Zooplankton data from vertical hauls by the "Fort Ross", 1960.

BO/2/32-3/11: Card 1 data with some other raw zooplankton data from Station'P':

...2/32-38 1961-67.

...3/1-11 1968-78.

** BP **

CHINOOK AND COHO INVESTIGATIONS

YEARS: 1949-77

SIZE: 18 boxes

DESCRIPTION

"BP" contains work by Milne, Godfrey and Sparrow, primarily from the S. coast of British Columbia. It is a diverse group but eight sub-groups have been identified and described in the table of contents below. The remainder of the group (sub-group no. 9) has miscellaneous information, e.g. sampling measurements and counts related to scale data, marking and tagging programs, hatchery operations (US and Canada), selectivity of trolling lures, incidental trawl catches of chinook and average weights of chinook. Some of these files may actually belong in other sub-groups.

1. Table of Contents:

a) Statistics of commercial catches by US and Canada (usually by gear, Area, year and species). Emphasis is on chinook and coho.

Files: 2/10,17-26,28,30,32,35; 3/1-7,10-18; 6/1-4,12; 8/1,2; 8/5-9/9; 16/5-15,17,18; 17/1-3,11.

b) Sampling data and counts from test fishing (mostly coho and chinook data).

Files: 3/21,23-28; 4/1-10,16; 5/6,7; 6/10; 7/8-10,12-16; 8/3; 11/1.

c) Study to assess the occurrence of underyearling coho in brackish water and marine environments and the effect of saline environments on scale characters. The files primarily have collection data, experimental rearing data, scale data and scale samples (1972-73).

Files: 1/3; 4/17-24; 5/8,11-13; 18/2.

d) (a)Catches and sampling data from experimental and sports fishing, (b)tagging data and (c)supporting background data - all part of a salmon ecology study in Georgia Str. (1972-73).

Files: 1/15; 4/25; 5/1-4,7,15; 7/11; 10/3; 13/1-5; 14/1-3; 15/1-3.

e) Collection and sampling data from a program to sample juvenile and some adult coho from 50-60 streams on Vancouver Is. and in the southern mainland area. The purpose was to assess the usefulness of X-ray spectroscopy as a stock identification method (1970-71).

Files: 3/22; 5/9,14,16-21; 10/1; 11/2; 16/2-4,16; 18/1,2.

f) Mark recovery program to evaluate ocean survival, distribution and contribution to Canadian and US catches of coho and chinook from US hatcheries (primarily in the Columbia R. system). Files related to the Informal Committee on Chinook and Coho and its Technical Working Group are also included in this sub-group. See the Description section of Record Group BH for a detailed list of the data on the "Mark Recovery Form", "Mark Recovery Logs" and "Biological Sample Sheet".

Files: 2/5,6,27,31; 4/11; 5/22-25; 6/11,13; 8/4; 10/2; 12/2,3; 16/1; 17/4,5-10,12-15.

g) Sampling data, scale samples and catch records from tagging, experimental fishing and food studies on chinook and coho in Cowichan R., Cowichan Bay and adjacent waters (1965-66).

Files: 1/1,2,4-13; 4/12-15; 6/14-18; 7/1,3-7; 12/1,4.

h) Tagging data, catches, sampling data and conference papers to do with a US/Canada coho tagging program in Juan de Fuca Str. in 1957/58 (to determine where the outside boundary for net fishing should cross the strait).

Files: 1/14,16-20; 2/1-4,7-9,12-15; 10/4.

i) Miscellaneous (see above).

Files: 2/11,16,29,36-38; 3/8,9; 7/2; 9/10; 10/5,6; 11/3; 12/5.

2. Note: See the Description section of Record Group BH for definitions of the special statistical areas used by the chinook and coho investigation (Areas 40-43).

HISTORY/SOURCE: H. Godfrey, D. Milne and H. Sparrow

INDEX TERMS

Species

Chinook / Coho / Chum / Pink / Sockeye

Life Stage

Fry / Juvenile / Smolt / Mature / Ocean fish

Statistical Area

All B.C. Areas

Location

High Seas / Alaska / Yakutat (Alaska) / S.E. Alaska / Queen Charlotte Islands (54) / Nass R. (3) / Prince Rupert / Skeena R. (4) / Fulton R. (4-4) / Namu (8) / Georgia Str. (50) / Vancouver Is. (51) / E. coast of Vancouver Is. (51-1) / Chef (Cook) Cr. (14) / Qualicum (Big Qualicum) R. (14) / Rosewall Cr. (14) / Nanoose Cr. (17) / Keighly Cr. (17) / Departure Bay (17) / Nanaimo / Northumberland Chan. (17) / Ladysmith / Cowichan Bay (18) / Cowichan R. (18) /

Shaw Cr. (18) / Mill Bay (18) / Saanich In. (18) / Goldstream R. (18) / Victoria / Juan de Fuca Str. (19-20) / W. coast of Vancouver Is. (51-2) / Robertson Cr. (23) / Vancouver / Fraser system (29) / Fraser R. (29) / Lower Mainland (29-0 to 29-3) / Prince George / Washington State / Puget Sd. (Wash.) / Grays Harbour (Wash.) / Columbia R. / Columbia system

Aspect

Age composition / Body size / Body weight / By catch / Calibration / Catch composition / Coastal fisheries / Conferences / Diurnal variations / Estuaries / Experimental culture / Experimental fishing / Fecundity / Fish catch statistics / Gear selectivity / Gillnetters / Growth / Hatcheries / Horizontal distribution / Identification keys / International cooperation / Marine ecology / Marking / Meristic counts / Migrations / Progress reports / Purse seining / Reproductive organs / Salinity / Salinity effects / Samplers / Scale impression cards / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sex ratio / Size distribution / Spectroscopic techniques / Sport fishing / Sport fishing statistics / Stock identification / Stocking (Organisms) / Stomach content / Survival / Tagging / Trawling / Trolling

REGISTER: RECORD GROUP BP

BP/1/0 Computer codes used to record sampling data from chinook and coho (key to data interpretation).

BP/1/1 Circuli measurements for juvenile chinook and coho from Cowichan Bay, 1966.

BP/1/2 (1)Chinook scale data (with a scale photo) and (2)mark recovery data - both from Cowichan Bay and estuary, 1966-67.

BP/1/3 Scale data and other sampling data from coho yearlings, Chef Cr., 1962-63.

BP/1/4 Scale data (including fork length to scale radius ratios) and pigmentation data for juvenile coho and chinook from Qualicum and Cowichan Rs., 1965-66.

BP/1/5 Scale data from seined and sport caught chinook in Cowichan Bay, 1966.

BP/1/6 Tag nos., by species, for chinook and coho in Cowichan Bay, 1965.

BP/1/7 Stomach contents of coho, chum and chinook, Cowichan R.

BP/1/8 Tide graphs and depth charts of Cowichan Bay.

BP/1/9-13 Circuli measurements from chinook and coho: (1)fish from various taggings,1966; (2)seine caught adults, 1966; (3)sport catches, 1966; (4)adult chinook, 1967; and (5)juvenile taggings, 1965.

BP/1/14 Data from recoveries of tagged coho by US and Canada, 1957-58.

BP/1/15 Chinook tagging data from Juan de Fuca Str., 1971.

BP/1/16 FRB tagging records for chinook and coho in Juan de Fuca Str., 1957.

BP/1/17-18 "Progress Report on the Coho Salmon Study in the Str. of Juan de Fuca, 1957-58".

BP/1/19 WDF tag releases in Juan de Fuca Str., 1957.

BP/1/20 Records of coho tagging by Wash., 1958.

BP/2/1 Juan de Fuca Str. study - records of chinook and coho taggings, 1958.

BP/2/2 Juan de Fuca Str. study - data from recoveries of tagged pinks, 1957.

BP/2/3 Juan de Fuca tagging program - duplicate records and daily logs, 1957.

BP/2/4 Misc. notes and data on (1)head strap tagging - US recoveries, (2)tagging codes, and (3)coho transplants (time of release experiments).

BP/2/5 "Coded wire tag use summary" (by WDF for US hatcheries), 1974.

BP/2/6 Index of chinook and coho hatchery experiments and release sites in B.C., 1971-74.

BP/2/7 Food of chinook and coho salmon in B.C. and selectivity of lures in the troll fishery, 1957.

BP/2/8 (1)WDF computer coding key for tag recoveries; and (2)summaries of Cdn. tag recoveries from 1957 coho tagging, 1957-58.

BP/2/9 Summary of proceedings and data for a presentation at a US/Canadian conference on Juan de Fuca coho, 1957.

BP/2/10 Correspondence with Namu, 1969.

BP/2/11 Notes on a speed sampler and forage trawl and notes on methods of holding fish for sampling on the High Seas, 1958 and 1963.

BP/2/12 Recoveries of coho that were tagged in Juan de Fuca Str., 1957-58.

BP/2/13 "Pink tagging in Str. of Juan de Fuca" (rough draft and summary), 1957-58.

BP/2/14 Juan de Fuca tagging by Canada and US - recoveries and reward correspondence, 1958.

BP/2/15 Juan de Fuca tagging program - coho sampling data by location and gear, 1957-58.

BP/2/16 Unidentifiable computer printout.

BP/2/17 (1)Summary of chinook catches in B.C. and (2)summaries of catches of all species (with Alaskan statistics), 1951-60.

BP/2/18 Average annual weights for chinook in Georgia Str., 1952-64.

BP/2/19 Statistics on B.C. chinook catches (by colour, gear, Area, month and sex), 1951-64.

BP/2/20 Chinook and coho catches by Area and grade (small reds, medium reds, etc.), 1960-63.

BP/2/21 Troll catches of chinook in B.C., by Area and grade, 1951-64.

BP/2/22 Chinook troll catches by Area, colour and grade, 1965.

BP/2/23 Chinook catch statistics, 1963.

BP/2/24 "Rough catch data by month", 1965.

BP/2/25 Comparison of coho and chinook catches with catches of other salmon, 1955-65.

BP/2/26 Gillnet catches of chinook, 1964.

BP/2/27 Sampling for marks in chinook landings at Vancouver. Summaries of the no. examined, nos. of valid and possible marks and % marked from Mark Recovery Forms, 1966.

BP/2/28 Chinook and coho catch statistics from Yakutat, Alaska, 1951-59.

BP/2/29 Illustrations and lists of figures and tables re: Canada/US negotiations, 1966.

BP/2/30 Chinook and coho catch statistics, 1966.

BP/2/31 Chinook and coho catches in US and B.C. for an International Committee Report, 1963-68.

BP/2/32 Chinook and coho catches from S.E. Alaska (charts and digests), 1960-64.

BP/2/33 Chinook catches by colour and grade, 1967.

BP/2/34 Chinook catch data (taken from ledgers), 1964.

BP/2/35 Troll catches of chinook and coho in Wash., 1963.

BP/2/36 B.C. Fish Marketing Report, 1966-68.

BP/2/37 B.C. Sport Fish Bulletin, 1967.

BP/2/38 "Monthly tidal sport salmon catches", 1968.

BP/3/1-2 Monthly and final statistics of chinook catches (and some chum catches) in Puget Sd., 1960-70.

BP/3/3 Statistics of coho catches in Puget Sd., 1959-70.

BP/3/4-6 Catch data for preparation of maps summarizing chinook and coho catches in Areas 1-11 and 12-29 (catches also include US and sports data), 1951-64.

BP/3/7 Chinook and coho catches by gear (in pcs.), for S.E. Alaska, 1951-64.

BP/3/8 Chinook and chum scales and associated data from Northumberland Chan. (off Harmac), 1965.

BP/3/9 "Correspondence with IBM in Victoria (re: sampling statistics from Area 40, W. coast of Vancouver Is.), 1962-64.

BP/3/10-16 Chinook "weighting factors" (catches by Area and month), 1963-69.

BP/3/17 Nos. of chinook sampled in B.C., 1964-65.

BP/3/18 Draft of a MS Rep. on catch sampling, showing lengths, ages and weighting factors, 1967.

BP/3/19-20 Chinook "weighting factors" and age and colour compostitions (by Area and month), 1964-66 and 1969.

BP/3/21 Chinook and coho investigation: computer coding key for interpretation of data printouts on test fishing samples from the Nass, Skeena and Fraser Rs.

BP/3/22 Circuli measurements from juvenile chinook and coho scales (to develop a stock identification key), 1964-66.

BP/3/23-24 Sampling data from Skeena R. test fishing for chinook and coho, 1964.

BP/3/25 Sampling data for chinook caught by test fishing in the Fraser R., 1964.

BP/3/26 Coho and chinook scales from Skeena R. test fishing, 1964.

BP/3/27 Data on stomach contents of coho and chinook from test fishing on the Skeena And Fraser Rs., 1964.

BP/3/28 Chinook scales (nos. 1-283) from Fraser R. test fishing, 1964.

BP/4/1 Sampling data and scales from chinook and coho, Nass R. test fishing, 1964.

BP/4/2 Chinook fecundities and pyloric caecae counts, 1964.

BP/4/3 Scale samples and circuli measurements from chinook caught in Fraser R. test fishing, 1965.

BP/4/4 Bioligical data sheets with chinook data from Fraser R. test fishing, 1965.

BP/4/5 Scale samples and catch data from Skeena R. test fishing (chinook and other spp.), 1965.

BP/4/6 Scale samples and egg counts from Nass R. chinook, 1965.

BP/4/7 Computer coding sheets for chinook samples taken at Nass, Skeena and Fraser R. test fishing, 1965.

BP/4/8-10 Chinook sampling data and scales from test fishing (Fraser, Skeena and Nass Rs.), 1966.

BP/4/11 Mark recovery forms with logs of sampling data for coho catches in Areas 40-43, 1964-65.

BP/4/12 Scales, circuli measurements and biological data sheets (with lengths, weights and sexes), for Fraser R. chinook smolts, 1964. The file includes some analysis of the data.

BP/4/13 Data on chinook ages in Area 8, 1964.

BP/4/14 Scales and scale measurements from the Fraser R. Board (primarily chinook), 1960-62.

BP/4/15 Sample data for chinook smolts caught at Prince George, 1962.

BP/4/16 Lengths, weights, scale data and scale impressions for (1)chinook smolts, Big Qualicum R., 1964; (2)coho adults from stream collections, 1971; (3)chinook smolts, Fraser system, 1964; (4)coho smolts, 1970; and (5)chinook adults from Skeena R. test fishing, 1966.

BP/4/17-24: 1972/73 study on possible survival of coho fry in the sea. This involved determining the effect of salinity on creation of a "freshwater zone" to see if adults with "freshwater" zones on their scales could still have spent their first year in the ocean:

...4/17 Scale measurements from control tank juveniles.

...4/18 Scale measurements from test tank juveniles (in saline water) and from wild adults and smolts.

...4/19 Sampling data and scale impressions from test tank jjuveniles.

...4/20-24 Collection and sampling data (including circuli measurements) from fry and smolts collected at Rosewall, Keighly, Nanoose and other Vancouver Is. creeks.

BP/4/25-5/4: Salmon ecology in Georgia Strait:

...4/25 Data on winter tagging of chinook and coho grilse ("Caligus" and "Remora"), 1972-73.

...5/1 Sampling data, scale impressions and field books (sport catch sampling along the E. coast of Vancouver Is.).

...5/2 "Hourston" craft trolling data (Departure Bay to Ladysmith), 1972-73.

...5/3 Tagging records from "Caligus", 1972.

...5/4 Sport catch sampling data from E. coast of Vancouver Is., 1972.

BP/5/5 Chinook and coho sampling data, with scale impressions, from "A.P. Knight", W. coast of Vancouver Is., 1971.

BP/5/6 Sampling data from trawl catches of chinook by "G.B. Reed" (lengths, weights and ages), 1973.

BP/5/7 Salmon ecology in Georgia Str.: data from "Remora" seine catches with log book, 1973.

BP/5/8 Ocean survival of coho fry: teletype output of location digitizer, measuring circuli from scales in scale boxes 1 to 8, 1972.

BP/5/9-10 Coho stock identification sampling for X-ray spectroscopy analysis: collections of fry and smolts from Vancouver Is. and S. mainland streams (electro-fishing logs with nos. sampled), 1970-71.

BP/5/11-13: Ocean survival of coho fry:

...5/11 Adult scale measurements from Nanoose and Rosewall Crs., juvenile scale measurements from sea water rearing tests at PBS and some chinook scale measurements, 1972.

...5/12 Scale data from Rosewall and Keighly Cr. fry, 1972.

...5/13 Conductivity tests for several Vancouver Is. streams, 1972.

BP/5/14 Stock identification sampling: computer coding sheets with coho smolt data from stream surveys, 1971.

BP/5/15 Salmon ecology in Georgia Str.: computer coding sheets with sport fishery data from Kiwanis Derby, 1971.

BP/5/16 Scale data for Goldstream and Robertson Cr. coho smolts (with field books), 1971.

BP/5/17-18: Stock identification sampling for coho, 1970:

...5/17 Field reports regarding the collection of fins and tails of adults for x-ray spectroscopy analysis.

...5/18 Summary of smolt collections.

BP/5/19 Data on marine collections of sockeye smolts, 1970.

BP/5/20-21: Stock identification sampling (cont'd):

...5/20 Computer coding sheets for smolt collections, 1970.

...5/21 Summary journal of juvenile coho collections taken from Vancouver Is. and Lower Mainland streams, 1969.

BP/5/22 Correspondence with the Oregon Fisheries Commission regarding chinook and coho mark illustrations, 1969.

BP/5/23-25 Coho mark recovery (MR) logs for 1969: Victoria (weeks 28-36); Vancouver (weeks 27-39); and Namu (weeks 25-33, with scale impressions).

BP/6/1 "Final Chinook Catch Statistics": Revised troll catches by Area (for all Areas) and by grade, 1964.

BP/5/2 "Chinook Troll Data", by Area and grade, 1965.

BP/6/3-4 Chinook length frequencies , 1956: (1)Vancouver landings of catches from Georgia Str., Queen Charlotte Is., and W. coast of Vancouver Is.; and (2)Fraser R. gillnet catches.

BP/6/5-8 [No file]

BP/6/9 Records of age, sex, size, growth and survival and data on conversion factors, mark recoveries and weighting factors - for chinook and coho in Georgia Str., W. coast of Vancuver Is. and the Fraser R., 1960-62.

BP/6/10 Annulus widths and circuli counts by month and age from ocean sampling of chinook, 1967.

BP/6/11 Summary of chinook mark sampling (Areas 29 and 40-42) with scale and age data, lengths and dressed weights, 1964-69.

BP/6/12 Misc. sampling and commercial catch data with an historical summary (all species), 1960-62.

BP/6/13 Tally records of marked chinook from Mark Recovery Forms, Victoria landings, 1964.

BP/6/14-7/1 Cowichan R. chinook and coho studies - tagging of chinook and coho in Cowichan Bay (mostly grilse):

...6/14 Tag recovery data, including scale information (recorded on Mark Recovery Forms). Tagged fish were released from the "Boathouse", 1966.

...6/15 Tagging data, including seine catches and scale data, 1966.

...6/16 Tag return data and reward correspondence, 1966.

...6/17 Tag returns, 1964-66.

...6/18 Tag return data and reward correspondence, 1965.

...7/1 Cowichan R. tag returns with reward correspondence, 1966.

BP/7/2-10 Cowichan R. chinook and coho studies:

...7/2 Salinometer calibration, 1966.

...7/3 Chinook catches by purse seine, beach seine and 4x4 trawl from Cowichan Bay (includes length frequencies), 1966.

...7/4 Depth surveys (Cowichan Bay?).

...7/5 Scale measurements for Mill Bay, Cowichan Bay and Saanich In. samples of chinook and coho, 1966.

...7/6 "24 hour food study": Stomach contents of coho, chinook and chum, 1967.

...7/7 Biological sample sheets (sampling data) for Cowichan Bay chinook and coho, 1966.

...7/8-10 Tagging and release data by local area and tag no., chinook and coho, 1966.

BP/7/11 Kiwanis Derby (Nanaimo to Qualicum) catch statistics, sampling data and lure survey, 1971.

BP/7/12-16 Chinook sampling data from Dept. of Fisheries (Nanaimo) including catch location, colour, age, length, sex and grade: Areas 29,40 and 41, 1960-61; and Areas 40 and 41, 1963.

BP/8/1-2 Chinook and coho catches (in pcs.) for all Areas and all gear, 1951-62.

BP/8/3 Chinook samples and catches by Area, 1962.

BP/8/4 Mark recovery data for the Columbia R. hatchery evaluation program, 1964.

BP/8/5 Revised chinook troll catches for all Areas, by grade, 1966.

BP/8/6 Summary of chinook troll catches, 1967.

BP/8/7-9/9 Chinook troll catches by Area, period and grade (filed by year), 1967-75.

BP/9/10 Computer coding key for data on chinook troll catches.

BP/10/1 Adult coho (and some sockeye) scales and scale impressions from various streams, including Vancouver Is. streams, 1971.

BP/10/2 (1)Mark records and recovery data, with ages, from chinook landings at Vancouver, Namu and Prince Rupert (1964-69); and (2)chinook scales and scale impressions from WCVI (1969).

BP/10/3 Records and scales from chinook and coho tagging by "Caligus" on WCVI, 1972.

BP/10/4 Slides of coho scales from Areas 13,23 and 29, 1957.

BP/10/5 Photo negatives of adult chinook along side a measuring stick.

BP/10/6 Chinook weighting factors (by sex).

BP/11/1 Stomach contents of chinook and coho caught by test fishing on the Fraser, Skeena and Nass Rs., 1964-65.

BP/11/2 Coho sampling data from Goldstream Cr., Robertson Cr., Shaw Cr., etc., 1971.

BP/11/3 Scale books, scale data, journals and diaries from John Stokes (Prince Rupert), 1949-1956.

BP/12/1 Photos, photo slides and negatives (Godfrey, Ball and Sparrow) re: coho investigations on the E. coast of Vancouver Is. and the Queen Charlotte Is. (subjects include research vessels, creek surveys and hermaphroditic salmon gonads).

BP/12/2 Misc. data: (1)Diagrams of Fulton R. spawning channel nos. 1 and 2; (2)cannery sales slips for some catches in Areas 12,13 and 20 (1977); (3)digitized head and tail positions of chinook and coho (to obtain lengths) - from "Caligus" catches (1974); (4)WDF errors in tag recovery data (1971-72); (5)memo to Pacific Marine Fisheries Commission re: selection of a CWT regional coordinator; (6)minutes of the technical working group of the Informal Committee on Chinook and Coho (1976); and (7)digitized positions (of circuli?) from the study on ocean survival of age 0. coho (samples from seawater rearing tests, 1973.

BP/12/3 Chinook and coho scales and scale impressions from B.C. hatchery samples taken for the Columbia R. hatchery evaluation program.

BP/12/4 Chinook and coho scales and scale impressions from (1)length and weight samples taken from sport catches (1966); and (2)juvenile and adult samples taken during length and weight sampling and tagging in Cowichan Bay (1965-67).

BP/12/5 Miscellaneous scale samples.

BP/13/1-15/2: Computer printouts of chinook catch and sampling data (including color, age, grade, sex and length) for the following Areas and years:

...13/1 Areas 29 and 41, 1964.

...13/2 Areas 1,12,40,42 and 43 (printout also has hypural lengths), 1964.

...13/3 Mark recovery sampling in B.C., 1964.

...13/4 Area 40, 1965.

...13/5 Areas 29 and 41-43, 1965.

...14/1 Areas 29 and 40-43, 1966.

...14/2 Area 40, 1967.

...14/3 Areas 41-43, 1967.

...15/1 Mark recovery sampling with some non-mark data, 1964.

...15/2 Areas 29 and 40-42, 1969.

BP/15/3 FRI Circular no. 68-18: Red salmon catch statistics, 1961-64.

BP/16/1 Average fork lengths and dressed weights of marked coho in Vancouver landings from Area 40, 1967.

BP/16/2-4 Scale measurements from juvenile coho that were sampled in approximately 50 streams on Vancouver Is. and the southern mainland (to evaluate X-ray spectroscopy as a stock identification method), 1970-71.

BP/16/5 Coho catches (by gear etc.) in the Indian fisheries in Puget Sd., Grays Harbour and Columbia R., 1965-67.

BP/16/6 Troll catches of chinook in Puget Sd., 1963-67.

BP/16/7-8 Annual US catches of chinook and coho by area and gear, 1960's.

BP/16/9-10 B.C. catches of chinook (in pcs.), by Area and gear, 1951-71.

BP/16/11-15 Annual US catch statistics, by area and gear, for chinook, coho, sockeye, chum and pink (1960's).

BP/16/16 Scale measurments of coho smolts (mainly from Vancouver Is. streams), 1970-71.

BP/16/17 Numbers of chinook salmon caught by net (by Area), with coded wire tag statistics, 1963-68.

BP/16/18 Graphs of chinook and coho catches in US and B.C., 1960's.

BP/17/1-2 Annual chinook catches by gear for B.C. Areas, 1951-64.

BP/17/3 Annual catches of coho by Area and gear, 1951-69.

BP/17/4 Mark recovery data, by Area, for 1965/66 brood year coho in B.C. waters, 1968-69.

BP/17/5 Estimated catches of Columbia R. fall chinook and hatchery evaluations by brood year, 1961-67.

BP/17/6 Recoveries of marked chinook by Area and year, with some hatchery contribution percentages, 1964-68.

BP/17/7 Recoveries of marked chinook by gear and Area, from Vancouver landings, 1968.

BP/17/8-10 Recoveries of marked chinook from Areas 40-43: 1969 (mainly troll), 1964 (by gear) and 1965.

BP/17/11 Chinook catches by gear for B.C., 1951-64.

BP/17/12-15: Canadian recoveries of chinook and coho that were marked in the Columbia R. hatchery evaluation program:

...17/12-13 Chinook recoveries by Area, 1966-67.

...17/14 Coho recoveries in the troll catch (includes Canadian fish), 1968.

...17/15 Prince Rupert, Namu and Vancouver landings, 1968.

BP/18/1 Juvenile coho scales and scale impression cards from approximately 55 streams on Vancouver Is., in the Fraser R. system and on the central and southern mainland (for the X-ray spectroscopy evaluation), 1971.

BP/18/2 Scales and scale impressions from the study on ocean survival of "surplus" coho fry: (1)coho fry and smolts collected at 19 Vancouver Is. streams and (2)coho reared in PBS tanks with different salinities. July 1972 to March 1973.

** BU **

POPULATION GENETICS STUDIES

YEARS: 1968-73

SIZE: 3 boxes

DESCRIPTION

BU has files from J. Calaprice's population genetics investigation. They include data from his development and evaluation of x-ray spectroscopy for identifying fish that have been tagged with chemicals, for identifying stocks based on genetic differences in their chemical compositions and for aging molluscs by detecting chemical rings in their shells. There are several files from hatchery experiments which involve: (1) rearing of coho, pink and chum crosses, (2)testing fertilization rates from sockeye crosses, (3)testing effects of mine tailings on coho, (4)testing density and feeding effects on coho, chum and sockeye, and (5) behavioural testing of juvenile Babine sockeye. Field data include material from a study of the distribution of sockeye spawners as they occupied grounds in the Morrison R. system, tributary to Babine L., and a tagging and egg collection program on pinks at Salmon R., in Area 13. Miscellaneous files deal with, for example, use of sandblasting to mark sockeye fry, specifications for the Rosewall hatchery, and blueprints for electronic calipers used to get morphometric measurements.

HISTORY/SOURCE: J. Calaprice

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Fish / Other

Life Stage

Fry / Smolt / Juvenile / Mature

Statistical Area

1 (North Queen Charlottes) / 4 (Skeena R.) / 4-2 (Terrace) / 4-4 (Babine) / 8 (Bella Coola) / 12 (Alert Bay) / 13 (Quathiaski) / 14 (Comox)

Location

Schulbuckhand (Scully) Cr. (4-2) / Babine system (4-4) / Babine R. (Lower) (4-4) / Morrison R. (4-4) / Salmon R. (13) / Rosewall Cr. (14) / Hot Cr. (California)

Aspect

Aging methods / Body size / Body weight / Breeding / Chemical analysis / Chemical compounds / Chemical properties / Electronic equipment / Feasibility / Fecundity / Feeding / Fish culture / Freshwater fish / Growth / Hatcheries / Horizontal distribution / Incubation / Length-weight relationships / Marine molluscs / Marking / Measuring devices / Methodology / Mortality / Orientation behaviour / Photographs / Pollution effects / Population genetics / Population number / Racial studies / Radioisotopes / Scales / Spawning / Spectroscopic techniques / Tagging / Temporal distribution

REGISTER: RECORD GROUP BU

BU/1/1 Scales from coho crosses at Rosewall Cr. in 1970.

BU/1/2 Data from a sockeye fertility experiment - Rosewall Cr., 1968-69 (original copy).

BU/1/3 1972 maze tests - (lower) Babine R. sockeye.

BU/1/4 Rosewall Cr. laboratory building - misc. information.

BU/1/5 1971-72 pink salmon collections in Areas 1,4,8,12 and 13 - budget and collection information.

BU/1/6 Duplicates of Rosewall data involving tagging experiments using rare earth elements, photos of pinks, sockeye fertility and chum crosses, 1968-69.

BU/1/7 Diaries and notes on experiments related to the genetics field program on Babine sockeye, 1972.

BU/1/8 Spawning observations at Babine, including compass bearings.

BU/1/9 Rosewall Cr. wetlab records re: pink and sockeye fry, 1968-69.

BU/1/10 Photos and negatives of graphs for publication re: a canonical analysis.

BU/1/11 Data from density experiments using coho at Scully Cr. hatchery.

BU/1/12 Lengths and weights from a feeding experiment at Rosewall Cr. hatchery and other miscellaneous information.

BU/1/13 Blueprints of a source holder for an X-ray spectrometer.

BU/1/14 Equipment illustrations and specifications.

BU/1/15 Notes re: the study on use of rare earth elements as fish tags.

BU/1/16 Hatchery study at Hot Cr., California.

BU/1/17 Sockeye marking with sandblaster at Scully Cr.

BU/1/18 Pink egg counts - Rosewall, 1968.

BU/1/19 Mortality and time of emergence data for progeny from crosses of Salmon R. pinks (the Salmon R. in Area 13), 1969.

BU/1/20 Coho/mine tailing experiment at Rosewall hatchery.

BU/1/21 1972 sockeye collection program.

BU/1/22 X-ray spectroscopy standards on plastic.

BU/1/23 Records of marked chum in groundwater at Rosewall, 1969.

BU/1/24 Records of coho (2x2 crosses) in groundwater at Rosewall, 1969.

BU/1/25 Records of chum (2x2 crosses) in river water at Rosewall, 1969.

BU/1/26 Records of chum crosses at Rosewall, 1968.

BU/1/27 Field correspondence re: pink study.

BU/1/28 Misc. papers - Rosewall.

BU/1/29 1968 pink experiment at Rosewall - element tagging for spectroscopic analysis.

BU/1/30 Adult pink tagging and observations at Salmon R. (Area 13).

BU/1/31 X-ray spectroscopy using coho smolts.

BU/1/32 Radioisotope information.

BU/1/33 1973 maze and vertical tests of Babine sockeye.

BU/1/34 1972 performance tests of Babine sockeye at Rosewall.

BU/1/35 Photos of shellfish and tanks.

BU/1/36 Sockeye feeding experiment at Rosewall, 1969.

BU/1/37 Mortality records for marked chum at Rosewall.

BU/1/38 List of compounds, with chemical attributes. They were probably candidates for use as chemical tags in the X-ray spectroscopy method of stock identification.

BU/1/39 Mortalities of coho in groundwater and river water at Rosewall.

BU/1/40 Final mortality records for a density experiment at Rosewall Cr., using chum in groundwater and river water, 1969.

BU/2/1 Aging data for shellfish (using x-ray spectroscopy).

BU/2/2 Juvenile coho collections with incidental catches of chinook, chum and pink fry, lamprey ammoceotes and resident fish, 1970.

BU/2/3 Slides of the sockeye study at Morrison R., 1973.

BU/2/4 Field notebooks - Rosewall and Babine.

BU/2/5 (1)Sockeye and coho length/weight graphs; and (2)blueprint for electronic calipers.

BU/2/6 Morrison R. study on timing and site selection of sockeye spawning, 1972.

BU/2/7 Photos and negatives of smolts and fry - used to obtain body measurements (?) for a behavioural or growth study, 1968-70.

BU/3/1 [No file]

BU/3/2 Statistical summaries of lengths and some weights of sockeye and chum in tanks with different water sources and fish densities (Rosewall Cr. hatchery - density experiments), 1970-71.

** BV **

MISCELLANEOUS FILES

YEARS: 1900-48; 1959-66

SIZE: 1 box

DESCRIPTION

BV contains a few files whose recent sources are not known and whose authors do not have their own Record Groups. The group is small enough that it would be redundant to describe the Register here - please see the Register.

HISTORY/SOURCE: F. Neave, W. Hoar, C. Shoop

INDEX TERMS

Species

Sockeye / Pink / Chum

Life Stage

Fry / Juvenile / Mature

Statistical Area

All B.C. Areas

Location

Alaska / Whale Chan. (6) / Seaforth Chan. (7) / Troup Pass. (7) / Johnson Chan. (7) / Lama Pass. (7) / Dean Chan. (8) / Fisher Chan. (8) / Fitz Hugh Sd. (8) / Columbia R.

Aspect

Age composition / Bibliographic information / Biochemical analysis / Blood / Body size / Body weight / Digestion / Escapement / Experimental data / Fatigue / Feed / Fish catch statistics / Growth / Horizontal distribution / Laboratory culture / Long term changes / Methodology / Population dynamics / Population number / Population structure / Spawning migrations / Statistical analysis / Stock assessment / Tagging / Temperature effects / Water temperature

REGISTER: RECORD GROUP BV

BV/1/1 Notes made by W. Hoar in 1946-47 on aspects of pink and chum population structures and dynamics (catches, escapements, sampling data, etc., by region). Includes application of regression and correlation analyses to this data and to other ancilliary data such as discharges and precipitations. Data is for ca. 1900-1946 period and is from all B.C. areas, Alaska and the Columbia R. (5 notebooks).

BV/1/2 Tagging and recovery data for pink and chum tagged in the area from Fitz Hugh Sd. to Seaforth Chan. and Dean Chan. in 1947 and in the Whale Chan. area in 1948 (a program by F. Neave).

BV/1/3 Files by C. Shoop on 1959-66 activities in R. Brett's investigation: (1)data (e.g. lengths and weights) from an experiment to determine growth of juvenile sockeye reared at different temperatures and given different food rations. Includes correspondence and data on diet formulations and projected growths. Also includes an annotated bibliography on growth in fishes; (2)correspondence and data on blood lactate concentrations of adult sockeye excercised at certain rates and for certain periods in Brett's swimming tunnel (includes bibliographic information on blood); (3)unidentified work sheets; and (4)correspondence about obtaining fish and the facilities for experiments.

** BW **

CODED WIRE TAGGING (CWT) DATA

YEARS: 1974-77

SIZE: 6 boxes

DESCRIPTION

This group has data on B.C. recoveries of coded wire tagged (CWT) coho and chinook, largely for 1974. There is a plethora of forms. They all have the basic "where, when and who" capture and landing data and entries for species and gear. The distinctions are:

...Collection Form: has entries for the length, weight, age and scale identitiy no. of mark recovered fish.

...Mark Sample Log: has entries to show the size of the landing, by species and grade and the size of the sample from this landing. It indicates the number of marked fish that were found and the identity nos. of their saved heads.

...Biological Sampling Form: similar to the Collection Form but used to record sampling data from un-marked fish and includes landing and sample size information.

...Individual Fin Mark Recovery Form: similar to the Mark Recovery Form used in earlier years; i.e., besides the basic information mentioned above, it provides for a description and an illustration of the mark, and has entries for length, sex, grade, scale no. and dressed or round weight. It has cross references to the corresponding Mark Sample Log and Biological Sampling Form.

...Mark Recovery Log: like the Individual Fin Mark Recovery Form but without the illustration.

There are also several files in BW with related correspondence, coding forms, coding/format keys, sampling directions, etc.

HISTORY/SOURCE: H. Godfrey

INDEX TERMS

Species

Coho / Chinook

Life Stage

Ocean fish

Statistical Area

All B.C. Areas

Location

Prince Rupert / Namu (8) / Victoria / Barkley Sd. (23) / Vancouver / Steveston

Aspect

Body size / Catch composition / Coastal fisheries / Colour / Fins / Fishery Industry plants / International cooperation / Landing statistics / Manuals / Marking / Sampling (Biological) / Scale reading (Ages) / Scales / Sex ratio / Tagging / Trolling

REGISTER: RECORD GROUP BW

BW/1/1-105 (and 1/108-2/8): Victoria landings, June to Oct., 1974 (filed by week):

...1/1-32 Collection Forms.

...1/33-64 Mark Sample Logs.

...1/65-77 Biological Sampling Forms - coho.

...1/78-98 Biological Sampling Forms - chinook.

...1/99-105 Biological Sampling Forms - coho.

...1/108-2/8 Individual Fin Mark Recovery Forms.

BW/1/106 Victoria scale books, 1974.

BW/1/107 Vessel logs from Victoria, 1974.

BW/2/9 Card format for new CWT records, 1974.

BW/2/10 Coded Individual Fin Mark Recovery Forms from Namu, Prince Rupert and Victoria, 1974.

BW/2/11 Coded Biological Sampling Forms from Victoria landings, 1974.

BW/2/12 Coded CWT recoveries from Norpac Fishing Co., 1974.

BW/2/13-16 Coded Biological Sampling Forms from Namu, Vancouver/Steveston, Norpac and Prince Rupert, 1974.

BW/2/17 Coded CWT recovery data for Victoria, 1974.

BW/2/18 1974 update of CWT data.

BW/2/19 CWT Collection Forms from Barkley Sd. troll fishery, 1975.

BW/2/20 Verified CWT recovery data for Prince Rupert, 1974.

BW/2/21 Description of new Mark Sample Log (with revised coding) for 1974-75.

BW/2/22 CWT recovery data for Vancouver/Steveston, 1974.

BW/2/23 Mark Sample Logs for Vancouver/Steveston, 1974.

BW/2/24-27 Coded Mark Sample Logs for Norpac, Namu, Victoria and Prince Rupert, 1974.

BW/2/28 Verified CWT recovery data for Namu, 1974.

BW/2/29 "No fish" CWT's from Victoria, 1974.

BW/2/30-32 CWT key punching formats/codes for 1975-76, 1976-77 and Oct., 1974 (the latter includes hatchery listings).

BW/2/33 Correspondence, 1975.

BW/2/34 Tag exchanges, 1975.

BW/2/35 CWT codes used by Dept. of Environment.

BW/2/36 List of marks used on chinook and coho, 1974.

BW/2/37 Memos and correspondence.

BW/2/38 Coding forms and misc. information, 1974.

BW/3/1-51: Mark Sample Logs, 1974:

...3/1-18 Vancouver, June to Oct. (by week).

...3/19-25 Norpac Fishing Co., April to Oct. (by month).

...3/26-41 Prince Rupert, June to Oct. (by week).

...3/42-51 Namu, June to Aug. (by week).

BW/3/52-53 Scales from Prince Rupert and Vancouver/Steveston recoveries, 1974.

BW/3/54 Copy of CWT codes, 1974.

BW/3/55 Copy of CWT sampling manual, 1974.

BW/3/56-62 Decoded CWT data giving release site and brood year for 1974 recoveries.

BW/4/1-10 Collection Forms for Namu, June to Aug., 1974 (filed by week).

BW/4/11 Scale analysis records for Namu, 1974.

BW/4/12-50: Collection Forms (filed by week), 1974.

...4/12-25 Prince Rupert, July to Oct.

...4/26-44 Vancouver, June to Oct.

...4/45-48 Nos. 208-4688 (except 2638-2699), 1974.

...4/49-50 Prince Rupert, June.

BW/4/51-5/24: Biological Sampling Forms (filed by week), 1974:

...4/51-63 Coho from Prince Rupert, June-Sept.

...4/64-76 Chinook from Prince Rupert, June-Sept.

...4/77-84 Chinook from Namu, June-Aug.

...4/85-92 Coho from Namu, June-Aug.

...5/1 Chinook from the Norpac Fishing Co.

...5/2-16 Chinook from Vancouver, June-Sept.

...5/17-24 Coho from Vancouver, June, Aug. and Sept.

BW/5/25-67: Individual Fin Mark Recovery Forms (filed by week), 1974:

...5/25-40 Prince Rupert, June-Oct.

...5/41-48 Namu, June-Aug.

...5/49 Norpac Fishing Co.

...5/50-67 Vancouver, June-Oct.

BW/5/68-6/19: Catch sampling - Mark Recovery Logs and Biological Sampling Forms, 1974:

...5/68-70 Namu (nos. 052-054).

...5/72-84 "Waterfront" (nos. 020,031,032,035,040-045,051-054).

...6/1-5 Norpac Fishing Co. (nos. 045,051-054).

...6/6-9 Steveston (nos. 051-054).

...6/10-13 Prince Rupert (nos. 051-054).

...6/14-19 Victoria (nos. 044,045,051-054).

BW/5/71	Catch sampling (as above) for Barkley Sd., early 1975.
BW/6/20	Biological Sampling Forms for Victoria, week of Oct. 21, 1974.

** BX **

MARK RECOVERIES OF FULTON SOCKEYE

YEARS: 1969

SIZE: 2 boxes

DESCRIPTION

Survival of sockeye from the Fulton R. spawning channels was evaluated in the 1960's and 70's by J. McDonald by fin-clipping fry from the channels and from the river. This Record Group has the Mark Recovery Forms from the first return of marked adults in 1969. The recoveries are from the fishery and from the Fulton escapement. The forms have length, age and sex data, recovery dates and locations and mark illustrations and descriptions. The fishery recoveries (from the canneries) have scale samples attached to the forms.

HISTORY/SOURCE: J. McDonald

INDEX TERMS

Species

Sockeye

Life Stage

Mature

Statistical Area

4 (Skeena R.) / 4-4 (Babine)

Location

Prince Rupert / Fulton R. (4-4)

Aspect

Age composition / Body size / Coastal fisheries / Fins / Marking / Scale reading (Ages) / Scales / Sex ratio / Spawning grounds

REGISTER: RECORD GROUP BX

BX/1 and BX/2 (both boxes): Mark Recovery Forms (MRF's) for fin-clipped sockeye that were recovered in 1969. All forms show the fish's age, sex, and hypural length, the percent of the fin that is missing (with an illustration) and date and location of recovery. Recoveries were from: (1)Fulton River and Fulton R. spawning channels, and (2)Prince Rupert canneries (Cassiar, Port Edward, Oceanside, etc.). There are weekly summaries of recoveries with the Fulton MRF's. The cannery MRF's have both fork and hypural lengths and have scale samples attached.

** BY **

WATER AND PLANKTON DATA FROM MARINE AND FRESHWATER ENVIRONMENTS

YEARS: 1955-56,1958-60,1965,1968-69,1971-79

SIZE: 3 boxes

DESCRIPTION

These files come from R. LeBrasseur. They center around marine and freshwater phytoplankton and zooplankton studies. The plankton work includes estimates of species composition, density and primary production. Other files have solar radiation data and water data (e.g. nutrients and organic and inorganic particulates). Still others have information on the marine food of salmon and benthic organisms. The salmon data also include estimates of growth of sockeye and chum, abundance data (from landings) and discussions about predation. The projects were diverse, e.g. water quality analyses of the PBS water supply, Nanaimo R. estuary studies, discussion and work on pollution problems on the coast and at Babine L., formative work on the lake fertilization program and High Seas studies on productivity and the food of salmon.

HISTORY/SOURCE: R. Lebrasseur.

INDEX TERMS

Species

Sockeye / Chum / Salmon / Plankton

Life Stage

Ocean fish / Mature

Statistical Area

4 (Skeena R.) / 4-4 (Babine) / 14 (Comox) / 17 (Nanaimo) / 23 (Barkley Sd.) / 50 (Georgia Str.) / 51 (Vancouver Is.)

Location

High Seas / Station 'P' / Babine L. (4-4) / Rosewall Cr. (14) / PBS (17) / Departure Bay (17) / Nanaimo R. (17) / Carnation Cr. (23) / Alberni In. (23) / Great Central L. (23) / Georgia Str. (50) / Vancouver Is. (51) / Washington State

Aspect

Abundance / Bacteria / Benthos / Biochemical composition / Biomass / Carbon 14 / Chemical limnology / Chemical oceanography / Chlorophylls / Estuaries / Food composition / Freshwater ecology / Freshwater lakes / Freshwater pollution / Growth / Horizontal distribution / Laboratory equipment

/ Landing statistics / Limnology (Physical) / Marine ecology / Marine pollution / Measuring devices / Oceanographic equipment / Physical oceanography / Phytoplankton / Pollution effects / Predation / Primary production / River discharge / Seasonal variations / Solar radiation / Stomach content / Zooplankton

REGISTER: RECORD GROUP BY

BY/1/1 Provisional data summary sheets for productivity surveys on the High Seas (H/S) - physical oceanographic data and data on nutrients and organic particulates ("G-2"), 1965.

BY/1/2 Data from C. Wood's notebook on fluorometric analysis of chlorophyll a and and nutrient and chemical analyses - water samples from Carnation Cr. and ocean station "P", 1974.

BY/1/3 Analysis of seawater at PBS pumphouse (organic and particulate matter), 1973.

BY/1/4 Provisional data summary sheets for a productivity study on the H/S, "G1-G13", 1965.

BY/1/5 Nutrient data from a summer study in Alberni In., 1971.

BY/1/6 Notes on zooplankton, primary production (C14 measurements), and solar radiation, 1968.

BY/1/7 Water quality and seawater filtration at PBS, 1972.

BY/1/8 Vancouver Is. lake studies - physical and chemical data,1971-72.

BY/1/9-16: Raw data and rough drafts for publications by the Pacific Oceanographic Group (POG):

...1/9 "The contribution of allochthonous bacteria and organic materials from a small river into a semi-enclosed sea".

...1/10 Modifications to salinometer in use at POG.

...1/11 "Natural copulation of zooplankton".

...1/12 "Seasonal variations in the availability of food for benthos in a coastal environment".

...1/13 "Some chemical constituents of marine zooplankton."

...1/14 "Automated measurement of dissolved nutrients".

...1/15 Phytoplankton pigment (nomographs for a special report).

...1/16 Continuous measurement of turbidity.

BY/1/17 Biomass of micro-flora.

BY/1/18 Physical and biological survey of Georgia Str., 1968.

BY/1/19 Phytoplankton data (including fluorometric measurements of chlorophyll) from H/S and laboratory samples, 1975.

BY/1/20 Solar radiation data from Great Central L., 1972-74.

BY/1/21 Departure Bay project - notes and project outline, 1973-74.

BY/1/22 Phytoplankton studies to determine the effects of industrial (e.g. mining) pollution on primary productivity in coastal waters of B.C. and Wash. State, 1972-73.

BY/1/23 Particulate and soluble carbon in Departure Bay, 1974.

BY/1/24 Studies on phytoplankton pigmentation in the N.E. Pacific, 1973-75.

BY/1/25 Coulter counts - Departure Bay samples, 1973.

BY/1/26 Primary productivity study of the Nanaimo R. estuary, with key for Nanaimo R. estuary and Departure Bay sampling stations, 1973.

BY/1/27 Nanaimo R. estuary studies - phosphates, nitrates, oxygen and phytoplankton, 1973.

BY/1/28 Daily discharges of the Nanaimo R., 1976.

BY/1/29 Babine L. - tables of chlorophyll measurements, 1969.

BY/1/30 Babine L. - graphs of chlorophyll and phosphate measurements, by station, 1969.

BY/1/31 Babine L. - secchi disc and BT readings, 1969.

BY/1/32 Babine L. - reactive phosphate data, 1969.

BY/1/33 Misc. notes on Babine studies, 1973.

BY/2/1 Babine L. - nutrient and phytoplankton measurements/experiments re: effects of copper mine tailings (e.g. nitrate data and data on species composition of phytoplankton, by station), 1969.

BY/2/2 Data from a water chemistry tests for Rosewall Cr. hatchery, 1972-73.

BY/2/3 Data from Nanaimo R. water sampling, 1973-75.

BY/2/4 Departure Bay "blitz" (intensive study session in 1976) - data from "Loligo".

BY/2/5 Nanaimo R. estuary - data from core samples and analyses of phytoplankton pigments, 1975.

BY/2/6 Summary of Departure Bay data with originals of MS Rep. No. 1280, 1975.

BY/2/7-8 Estimates of photosynthesis rates using C14 uptake - Departure Bay and Nanaimo R. estuary, 1974-75.

BY/2/9 Nanaimo R. water sampling for dissolved oxygen and phytoplankton pigmentation, 1974.

BY/2/10 Departure Bay nutrients study (nitrates and reactive phosphate), 1974-75.

BY/2/11 Field books for various studies at Great Central L., Carnation Cr., Rosewall Cr. and other areas on Vancouver Is. (these notebooks are mostly records of chlorophyll, nutrients and phytoplankton), 1971-79.

BY/3/1-3 Data and graphs on the food of salmon in the ocean. There is information on zooplankton, growth rates of chum and sockeye, stomach contents, predation and commercial landings.

BY/3/4 Personal diaries, 1955-56 and 1958-60.

** CA **

SCALES - PRIMARILY FROM HIGH SEAS TAGGING

YEARS: 1956-69.

SIZE: 10 boxes

DESCRIPTION

This group largely consists of scales taken on the High Seas by tagging vessels, with some scales from salmon subsequently recovered with High Seas tags There are also scales from recoveries of marked coho in 1968. The scales are in collection books, on microscope slides and in the form of scale impressions. They are in some disorder because they were salvaged from a fire at PBS.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Salmon

Life Stage

Ocean fish / Mature

Statistical Area

8 (Bella Coola) / 19 (Victoria)

Location

High Seas / Namu (8) / Victoria

Aspect

Commercial fishing / Experimental fishing / Marking / Scales / Scale impression cards / Tagging

REGISTER: RECORD GROUP CA

CA/1-2/1(Box 1 and bag 1 in box 2) Scale samples from Canadian H/S tagging, showing vessel, cruise no., tag no. and scale card no., 1962.

CA/2/2 Scale samples from Canadian H/S tagging by "Canadian No. 1", sets BW01-B022.

CA/2/3 Coho scales from mark recoveries at Namu and Victoria, 1968.

CA/3-6: Scales from H/S tagging (mixed spp.):

...3/-(entire box) "G.B. Reed", 1966.

...4/-(entire box) "G.B. Reed", "Western Crusader", "Western Producer", "P.W. Zelly" and weathership "Papa", 1963-64.

...5/-(entire box) Various vessels, 1966.

...6/-(entire box) Various vessels, including "G.B. Reed", 1965.

CA/7/-(entire box) (1)Scales from mixed spp. H/S tagging by "Sea Queen" (1965-67) and "Canadian No.1" (1965); (2)chum and sockeye scales (with H/S coordinates shown), 1965; and (3)scale impressions from H/S tagging of sockeye and other species, 1967.

CA/8/1-3 Scales from H/S tagging by: (1)"Sea Queen" (cruise no. 5, 1967); (2)"Key West" II, 1960; and (3)miscellaneous vessels.

CA/8/4 Mounted scales from H/S tagging of steelhead, 1957.

CA/8/5-9/3: Scales from H/S tagging:

...8/5 "Key West II", cruise 3, 1956.

...8/6-8 "Fort Ross" (all salmon spp. and steelhead), 1961.

...8/9-10 "Western Crusader" (all salmon spp. and steelhead), 1961.

...8/11 "G.B. Reed", cruise 1, 1967.

...9/1 "Key West"(?), 1959.

...9/2 "G.B. Reed", cruise 2, 1965.

...9/3 Sockeye, pink, chum and coho scales, 1957.

CA/9/4 "Replacement scales", 1965.

CA/9/5 Sockeye, pink, chum, coho and steelhead scales, 1968.

CA/9/6-8: Scales from tag recoveries of all spp.:

...9/6 1964-69.

...9/7 1966-67.

...9/8 1966.

CA/9/9 Scales from sockeye sampled for parasitology studies, 1956.

CA/10/1 Scale impressions from H/S samples.

CA/10/2-4 Scales from recoveries of H/S tags (all spp.), 1961 and 1965-66.

CA/10/5 H/S scales from all spp., 1956.

CA/10/6 Scales from gonad sampling, "Sea Pride II", 1957.

CA/10/7 Scale impressions from mixed spp., 1963.

CA/10/8 Microscope slides of scales from mixed spp., 1957.

CA/10/9 H/S scale samples from: (1)"G.B. Reed" (1968 and cruise 2 in 1963); (2)sockeye meristics samples, 1965; (3)"Fort Ross" pink samples, 1961; and (4)miscellaneous sources.

CA/10/10 Misc. H/S samples of sockeye, chum, pink, coho and steelhead scales.

** CB **

SCALES, PRIMARILY FROM SKEENA RIVER TEST FISHING

YEARS: 1954-64

SIZE: 2 boxes

DESCRIPTION

This group has scale books and scale impressions from salmon and steelhead trout that were sampled in the Skeena R. test fishing operation near Tyee. There are also some scales taken in 1954-55 from trap net catches and from various locations in the Lakelse system. The Lakelse samples were obtained from fence operations and creel surveys.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Fish

Life Stage

Mature / Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-4 (Babine)

Location

Skeena R. (4) / Lakelse system (4-2) / Babine R. (Lower) (4-4)

Aspect

Angling / Experimental fishing / Freshwater fish / Jacks / Scale impression cards / Scales / Test fishing / Trap fishing / Weirs

REGISTER: RECORD GROUP CB

CB/1/1-2/6: Scale books from samples taken from the Skeena R. test fishing:

...1/1 All salmon species, 1962. Includes scales from jack sockeye taken at the Babine fence, 1962.

...1/2 Sockeye, 1962.

...1/3 All salmon spp., 1959.

...1/4 All salmon spp. and steelhead, 1960.

...1/5-6 Sockeye, 1960-61.

...1/7 Unknown spp., 1963.

...2/1 All salmon spp., 1957.

...2/2 All salmon spp. and steelhead, 1958.

...2/3 (1)Sockeye, pink, chum and steelhead, 1963-64; (2)trap net samples; and (3)angling and fence samples of resident fishes from various locations in the Lakelse system, 1954-55.

...2/4 All salmon spp. except pinks, 1955.

...2/5 All salmon spp., steelhead and Dolly Varden, 1956.

...2/6 Sockeye, 1956.

CB/2/7 Impressions of steelhead scales from Skeena Test fishing, 1956.

** CC **

SCALES AND TAGS FROM JOHNSTONE AND GEORGIA STRAITS

YEARS: 1945-46, 1950, 1953, 1955

SIZE: 2 boxes

DESCRIPTION

The first sub-group (Box 1) has books of chum scales from Johnstone Strait. The second sub-group (Box 2) has tags which were recovered in 1955 from pink and chum in Johnstone and Georgia Straits. Lengths, weights, sex and recovery information are shown on the tag envelopes. The material was salvaged from a fire at PBS.

HISTORY/SOURCE: D. Foskett, T. Bilton and R. Ball.

INDEX TERMS

Species

Pink / Chum

Life Stage

Mature

Statistical Area

12 (Alert Bay) / 13 (Quathiaski) / 14 (Comox) / 15 (Toba In.) / 16 (Pender Harbour) / 17 (Nanaimo) / 50 (Georgia Str.)

Location

Johnstone Str. (12-13) / Georgia Str. (50)

Aspect

Body size / Body weight / Coastal fisheries / Scales / Sex ratio / Tagging

REGISTER: RECORD GROUP CC

CC/1/1-3 Scale books from chum in Johnstone Str., 1945-46, 1950, 1953.

CC/2-(entire box) Tags that were recovered in Johnstone Str. and Georgia Str. from pink and chum, 1955. Recovery information on tag envelopes includes the length, weight and sex of the fish and the date and location of its recovery.

** CD **

SCALES AND SAMPLING DATA - PRIMARILY FROM SOCKEYE AT THE BABINE FENCE

YEARS: 1949-63

SIZE: 2 boxes

DESCRIPTION

This Record Group has scale samples and associated sampling data (lengths, sexes, maturities and occasionally weights, fecundities, stomach contents and occurrence of lesions). The samples are mostly adult sockeye from the Babine fence on the (Lower) Babine River. They came from routine daily sampling (1942-62), fecundity sampling (1949-53) and from tag and mark recoveries (1950-51,1954-58 and 1963). There are also sockeye samples from the Gitnadoix/Alastair system, Prince Rupert canneries and Rivers Inlet. Some pink and chum samples are present from the Babine fence and Area 25, respectively.

HISTORY/SOURCE: T. Bilton? (recovered from warehouse fire)

INDEX TERMS

Species

Sockeye / Pink / Chum / Fish

Life Stage

Mature / Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-4 (Babine) / 9 (Rivers In.) / 25 (Nootka)

Location

High Seas / Prince Rupert / Gitnadoix R. (4-2) / Alastair system (4-2) / Babine R. (Lower) (4-4) / Rivers In. (9) / Nootka Sd. (25) / Esperanza In. (25)

Aspect

Angling / Body size / Body weight / Coastal fisheries / Colour / Fecundity / Freshwater fish / Lesions / Marking / Scales / Sex ratio / Sexual maturity / Spawning grounds / Stomach content / Tagging / Weirs

REGISTER: RECORD GROUP CD

CD/1/1-2/5: Scales with associated "sampling data" (fork and/or hypural lengths, sexes and, for some sockeye samples, the external color). Other types of sampling data are noted in the specific file. All samples were sockeye from the Babine fence unless noted otherwise. "Fence samples" refers to the sockeye samples taken each day at the Babine fence:

...1/1 Fence samples, 1960-61.

...1/2 (1)Fence samples; (2)scales and sampling data (including weights) from sockeye sampled for fecundity (no fecundity data); and (3)extra length and sex data (no scales), 1949.

...1/3 (1)Fence samples, 1962; and (2)scales and sampling data from fin -clipped sockeye, 1963.

...1/4 Fence samples, 1952.

...1/5 Fence samples, 1955.

...1/6 Scales and sampling data from tagged sockeye recovered at the fence and upstream from the fence. Data include occurrence of lesions (e.g. net scars), 1957.

...1/7 Scales and sampling data from: (1)Fence samples; (2)sockeye in Gitnadoix R. and in tributaries to Alastair L.; and (3)chum from the "Cape Blanco" in Nootka Sd. and Esperanza In., 1959.

...1/8 Fence samples, 1958.

...1/9 Fence samples of pinks, 1960.

...1/10 Fence samples, 1951.

...1/11 Fence samples, 1950.

...1/12 Scales and sampling data from fin clipped sockeye, 1954.

...1/13 Scales and sampling data (including weights) from sockeye sampled for fecundity (no fecundity data), 1950 and 1952.

...1/14 Scales and sampling data from marked and tagged sockeye recovered at the fence. Data include occurrence of lesions, 1955-56.

...1/15 (1)Dolly Varden and rainbow trout scales, with stomach content, length, weight and sex data - from anglng catches at the fence; and (2)scales and sampling data (including weights) from sockeye sampled for fecundity (no fecundity data), 1951.

...1/16 (1)Fence samples and (2)scales and sampling data (including weights) from sockeye sampled for fecundity (includes fecundity data), 1953.

...1/17 Fence samples, 1954.

...1/18 Scales and sampling data from: (1)fence samples, (2)sockeye landings at Prince Rupert, and (3)Rivers In. sockeye, 1957.

...1/19 Scales and sampling data from tagged sockeye recovered at the fence, 1958.

...2/1-3 Scale books, mounted scales and sampling data from marked Babine sockeye recovered in the Skeena fishery and at the Babine fence, 1950-51.

...2/4 Fence samples, 1956.

...2/5 Scales and sampling data from sockeye tagged on the High Seas and recovered at the fence, 1963.

** CE **

SCALES OF SOCKEYE SMOLTS AND KOKANEE

YEARS: 1952-60

SIZE: 3 boxes

DESCRIPTION

CE contains scales of sockeye smolts and kokanee from the Babine, Lakelse, Port John and Bear L. systems. They are mounted on microscope slides.

HISTORY/SOURCE: T. Bilton? (salvaged from fire in PBS warehouse)

INDEX TERMS

Species

Sockeye / Kokanee

Life Stage

Smolt / Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 8 (Bella Coola)

Location

Lakelse system (4-2) / Lakelse R. (4-2) / Bear L. (4-3) / Babine system (4-4) / Babine R. (Lower) (4-4) / Nilkitkwa L. (4-4) / Babine R. (Upper) (4-4) / Fort Babine (4-4) / Babine L. (4-4) / Port John (8)

Aspect

Experimental fishing / Freshwater / Scales / Trap fishing / Weirs

REGISTER: RECORD GROUP CE

CE/1-3(Boxes 1-3): Scales from sockeye smolts (mounted on microscope slides):

...1/1 Babine - 1958.

...1/2 Nilkitkwa (Babine) - 1960.

...1/3 Lakelse R. fence - 1952-53.

...2/-(entire box) (1)Port John, 1950 and 1952; (2)misc. unlabelled slides; (3)Babine L., Fort Babine, Nilkitkwa L. and Babine fence (including some kokanee scales), 1952-55; and (4)Bear and Lakelse systems, 1955.

...3/-(entire box) (1)(Upper) Babine R., (Lower) Babine R., Fort Babine, Babine L. and Nilkitkwa L., 1953, 1956, 1957 and 1959; and (2)Bear and Lakelse systems, 1956.

** CF **

SCALES FROM RESIDENT FISH IN THE LAKELSE AND BABINE SYSTEMS

YEARS: 1944-47,1952-55

SIZE: 1 box

DESCRIPTION

Record Group CF has mounted and un-mounted scales from resident fish in the Lakelse system, with a few from Babine and Morrison lakes also. Species include whitefish, Dolly Varden char, cutthroat trout, rainbow trout, squawfish and peamouth chub.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Fish

Life Stage

Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-2 (Terrace) / 4-4 (Babine)

Location

Lakelse R. (4-2) / Lakelse L. (4-2) / Babine L. (4-4) / Morrison L. (4-4)

Aspect

Angling / Experimental fishing / Freshwater fish / Marking / Net fishing / Scales / Weirs

REGISTER: RECORD GROUP CF

CF/1/-(loose in box) Scales of whitefish, Dolly Varden, cutthroat trout, rainbow trout, squawfish and peamouth chub. Taken during marking operations at a weir and from gillnetting and creel surveys in 1952-54. Probably from the Lakelse system.

CF/1/-(loose in box) Slides with whitefish scales from Lakelse, Babine and Morrison Ls., 1945-47.

CF/1/1 Samples from the Lakelse R. fence of resident fish, including mark recoveries, 1955.

CF/1/2	Scales from gillnet catches of resident fish in Lakelse L., 1955.
CF/1/3	Scales of resident fish from creel sampling in Lakelse L., 1955.
CF/1/4	Scales from experimental netting of resident fish in Lakelse L., 1955.
CF/1/5	Squawfish scales from the Lakelse system(?) 1944-45 and 1947.

** CG **

SCALE SAMPLES AND ASSOCIATED DATA FROM EARLY SKEENA R. STUDIES

YEARS: 1944-58, 1967

SIZE: 5 boxes

DESCRIPTION

This Record Group consists mainly of scale samples which were collected in the 1940's and early 1950's as part of the original Skeena R. studies. They were collected from spawning grounds, in lakes by gillnetting and from marking and tagging programs. There are some scale measurement sheets and scale data cards as well as some marking data and morphological measurements.

HISTORY/SOURCE: T. Bilton? (salvaged from a fire at PBS)

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Fish / Other

Life Stage

Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 5 (Grenville-Principe)

Location

Steamer Pass. (3) / Nass R. (3) / Meziadin system (3) / Damdochax L. (3) / Prince Rupert / Skeena R. (4) / Alastair system (4-2) / Lakelse system (4-2) / Kitsumkalum (Kalum) system (4-2) / Kitwanga system (4-2) / Kispiox system (4-2) / Moricetown Falls (4-3) / Nanika R. (4-3) / Slamgeesh system (4-3) / Kluayaz L. (4-3) / Motase L. (4-3) / Bear L. (4-3) / Azuklotz L. (4-3) / Sustut L. (4-3) / Johanson L. (4-3) / Babine system (4-4) / Babine R. (Upper) (4-4) / Morrison R. (4-4) / Fulton R. (4-4) / Pierre Cr. (4-4) / Twain (Twin) Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / 4-Mile Cr. (4-4) / Shass (Grizzly) Cr. (4-4) / Mink Trap Bay (5) / Lowe In. (5) / Miami (Florida)

Aspect

Anatomy / Biological data / Coastal fisheries / Exploratory fishing / Freshwater fish / Graphic methods / Freshwater lakes / Marine fish / Marking / Scale reading (Circuli measurements) / Scales / Scale impression cards / Spawning grounds / Stock identification / Stomach content / Tagging / Weirs

REGISTER: RECORD GROUP CG

CG/1/1-7 Scale sample books for Skeena R. sockeye, 1949-1954, 1956.

CG/1/8 Measurement sheets of sockeye(?) scales from Mink Trap Bay, the Skeena R. estuary and Lowe Inlet, 1944.

CG/1/9 "Doubtful mark" sheets from Carlisle, N. Pacific, Cassiar, Inverness, Port Edward and Sunnyside canneries, 1950.

CG/2/1-2 (1)Scales from marked fish recovered in canneries on the Skeena R., 1949, and (2)scales from the Babine and Lakelse systems, with biological data, 1948.

CG/3/1-7 Scale books for Nass R. sockeye, 1949-1954, 1956.

CG/3/8 Scales from Moricetown Falls and Inverness cannery (coho, chinook and sockeye), 1951-52.

CG/3/9-11 Scale books from the Lakelse system: (1)Gillnet catches, 1955-56; (2)fence samples of sockeye, 1952; and (3)coho, 1952.

CG/3/12 Scales from marked sockeye that were recovered at Prince Rupert canneries, 1950-51.

CG/4/1 Cards with data on the scales of cutthroat trout from Lakelse L. (several years).

CG/4/2-3 Scales from marked Babine sockeye that were recovered at North Pacific and Cassiar canneries (Prince Rupert), 1950.

CG/4/4-5 Scale samples from the Babine system (probably sockeye): Twin (Twain) and 15-Mile (Pinkut) Crs., 1944.

CG/4/6 Misc. scale books: (1)Alastair L. whitefish and chub, 1947; (2)suckers, whitefish, peamouth, squawfish and sockeye from Kitwanga L. and R., 1945-1947; (3)sockeye(?) from Pierre, Twin, Four Mile and Grizzly (Shass) Crs. and Fulton, (Upper) Babine and Morrison Rs., 1944.

CG/4/7 Kispiox netting records and scale samples, 1945-46, and microscope slides with scales of salmon and resident fish in Damdochax, Slamgeesh and Johanson Lks., 1946.

CG/4/8 (1)Microscope slides with scales from salmon and resident fish from the upper Skeena system, including Bear L., Azuklotz Cr., Sustut L., Kluayaz L. and Motase L., 1945-48. Included in this collection of scales is a sample of striped mullet scales from Miami, Florida, scales of salmon and non-salmon from Steamer Pass. (1945) and several slides with unidentified scales.

CG/4/9 Scales from sockeye spawners in the Kispiox, Kalum, Alastair and Nanika systems.

CG/4/10 (1)Scales from marked Babine sockeye that were recovered in canneries, 1950-51; (2)scales from fish found in stomachs; and (3)misc. microscope slides with unidentifiable scales.

CG/4/11 (1)Scales of tagged adult sockeye from the Meziadin and Alastair systems and from Moricetown Falls; (2)sockeye scales from Nanika R. (1956) and the Skeena and Nass systems (1955); and (3)chum scales from Inverness cannery (Prince Rupert), 1950.

CG/4/12 Morphological measurements for an INPFC stock identification study of Nass and Skeena R. stocks, 1957.

CG/5/-(entire box) (1)Scale sample books from Skeena "outside" tagging in Areas 3-5, 1957-58; and (2)sockeye scale impressions from Areas 3-5, 1967.

** CH **

SCALES FROM SAMPLING OF COMMERCIAL CATCHES IN 1957

YEARS: 1957

SIZE: 1 box

DESCRIPTION

CH has books of scales which were collected when commercial catches of chum, sockeye and pinks were sampled in 1957. The scales were salvaged from a fire at PBS.

HISTORY/SOURCE: T. Bilton

INDEX TERMS

Species

Sockeye / Pinks / Chum

Life Stage

Mature

Statistical Area

54 (Queen Charlotte Islands) / 3 (Nass R.) / 4 (Skeena R.) / 5 (Grenville-Principe) / 6 (Butedale) / 7 (Bella Bella) / 8 (Bella Coola) / 9 (Rivers In.) / 10 (Smith In.) / 24 (Clayoquot) / 51-2 (W. coast of Vancouver Is.) / 29 (Fraser R.)

Location

Queen Charlotte Islands (54) / Nass R. (3) / Skeena R. (4) / Ogden Chan. (5) / Banks Is. (5) / Wright Sd. (6) / Mathieson Chan. (7) / Rivers In. (9) / Smith In. (10) / Johnstone Str. (12-13) / W. coast of Vancouver Is. (51-2) / Clayoquot Sd. (24) / Fraser R. (29)

Aspect

Coastal fisheries / Estuarine fisheries / Sampling (Biological) / Scales

REGISTER: RECORD GROUP CH

Scales from 1957 sampling of commercial catches:

CH/1/1	Skeena R. chum.
CH/1/2	Ogden Chan. chum.

CH/1/3	Clayoquot Sd. chum.
CH/1/4	Pinks and chum from the "middle areas".
CH/1/5	Area 8 pinks and chum.
CH/1/6	Mathieson Chan. pinks.
CH/1/7	Wright Sd. pinks.
CH/1/8	Wright Sd. chum.
CH/1/9	Nass R. sockeye and chum ("special" samples).
CH/1/10	Nass R. pinks, chum and sockeye.
CH/1/11	Skeena R. sockeye and pinks.
CH/1/12	Johnstone Str. chum.
CH/1/13	Rivers In. sockeye.
CH/1/14	Chum from the W. coast of Vancouver Is.
CH/1/15	Smith In. sockeye.
CH/1/16	Banks Is. pinks.
CH/1/17	Fraser R. chum.
CH/1/18	Pinks from the Queen Charlotte Is.

** CI **

SCALES FROM COASTAL SAMPLES

YEARS: 1942, 1947, 1950-57, 1960-62

SIZE: 3 boxes

DESCRIPTION

The CI group is another collection of scale books which were salvaged from a warehouse fire at PBS. The samples were taken from all North American salmon species but especially from coho and chinook. Samples were taken throughout the B.C. coast. There are also sample books from tagging in 1950, and some very rough field notebooks.

HISTORY/SOURCE: Most of these scale sample books are from the collections of B. Ball and T. Bilton.

INDEX TERMS

Species

Sockeye / Pink / Chum / Chinook / Coho / Salmon

Life Stage

Ocean fish / Mature

Statistical Area

4 (Skeena R.) / 8 (Bella Coola) / 9 (Rivers In.) / 10 (Smith In.) / 16 (Pender Harbour) / 17 (Nanaimo) / 18 (Cowichan) / 19 (Victoria) / 20 (Sooke) / 21-22 (Nitinat) / 23 (Barkley Sd.) / 26 (Kyuquot) / 27 (Quatsino) / 28-2 (Squamish) / 29 (Fraser R.) / 29-2 (Mission) / 50 (Georgia Str.) / 51 (Vancouver Is.) / 51-2 (W. coast of Vancouver Is.)

Location

Prince Rupert / Rivers In. (9) / Smith In. (10) / Vancouver Is. (51) / Pender Harbour (16) / Georgia Str. (50) / Nanaimo / Thatcher Cr. (17) / Cowichan system (18) / Ogden Pt. (20) / Sooke / Juan de Fuca Str. (19-20) / Nitinat L. (22) / W. coast of Vancouver Is. (51-2) / Ucluelet / Kyuquot Sd. (26) / Quatsino Sd. (27) / Horseshoe Bay (28-1) / Vancouver / Point Grey (29) / Fraser R. (29) / Nicomen Slough (29-2)

Aspect

Body size / Body weight / Coastal fisheries / Experimental fishing / Scales / Sex ratio / Sport fishing / Tagging

REGISTER: RECORD GROUP CI

Note: Files contain scale books unless noted otherwise.

CI/1/1-3 (1)Fraser R. coho, chum and chinook (1942); (2)chinook (1956); and (3)chum (1957).

CI/1/4 Ucluelet coho (1950).

CI/1/5-7 Sampling books from tagging operations (1950).

CI/1/8 Kyoquot sockeye and coho (1950).

CI/1/9 Kyoquot and Ucluelet chinook (1950).

CI/1/10 Chinook scales from a tagging program on N. Vancouver Is. (including Quatsino Sd.), 1950.

CI/1/11-13 Vancouver chinook and coho (1951) and coho (1952).

CI/1/14 Cowichan, Sooke and Fraser R. chinook (1950, 1954-55).

CI/1/15 Chinook and coho from Horseshoe Bay and Sooke (1952).

CI/1/16-17 Vancouver coho and chinook (1953).

CI/1/18 Georgia Str.chinook and coho (1954).

CI/2/1 Vancouver coho (1955).

CI/2/2 Vancouver and Pender Harbour chinook (1955).

CI/2/3 Vancouver and Fraser R. chinook (1955).

CI/2/4-5 Vancouver coho and chinook (1956).

CI/2/6-8: Coho scales from the 1957 coho tagging program in Juan de Fuca Str. (a US/Canada study):

...2/6 Gillnet catches.

...2/7 Seine catches.

...2/8 Tagging samples from the trap (at Sooke?).

CI/2/9-10 Georgia Str. coho and chinook (1957).

CI/2/11 Fraser R. coho (1957).

CI/2/12 Coho scales from troll sampling on the W. Coast of Vancouver Is. (1957).

CI/2/13 Coho and chinook scales from Nicomen Slough and various rivers (1957).

CI/2/14 Cowichan R. and Thatcher Cr. coho (1957).

CI/2/15 Georgia Str. and W. coast of Vancouver Is. coho (from gonad sampling), 1957.

CI/2/16 Fraser R. chinook (1957).

CI/2/17-18 Chinook scales from the Juan de Fuca Str. coho tagging program, 1957: (1)tagging samples and (2)gillnet, trap and seine samples.

CI/2/19 Georgia Str. and W. coast of Vancouver Is. chinook (from gonad sampling), 1957.

CI/2/20 Chinook scales from troll sampling on the W. coast of Vancouver Is. (1957).

CI/2/21 Vancouver chinook (1952).

CI/2/22 Chinook and coho from Nanaimo and Pt. Grey (1956).

CI/2/23 W. coast of Vancouver Is. pinks (1961).

CI/2/24 Nitinat and Ogden Pt. sockeye (1947).

CI/3/1-5: Scales from Prince Rupert samples:

...3/1 Coho (1952).

...3/2 Chinook and coho (1953).

...3/3 Mixed spp. (1954).

...3/4 Chinook and coho (1955).

...3/5 Chinook (1952).

CI/3/6-11 Rivers In. sockeye, 1950-54 and 1956 (approx. 9200 samples, filed by year).

CI/3/12 1955 field books from Rivers and Smith Inlets and Bella Coola containing tag recovery date and weights, lengths and sexes of various salmon spp. (including sockeye and chum). Some samples came from canneries at Victoria, Vancouver, Port Alberni and Sooke.

CI/3/13-16: Scale books from Rivers In.:

...3/13 Unknown spp. (1951).

...3/14-15 Chinook (1952-53).

...3/16 Mixed spp., including some samples from sport catches (1954).

CI/3/17 Chum and chinook from Rivers In., Smith In. and Area 8 (1960).

CI/3/18-24 Smith In. sockeye: 1947, 1950-54 and 1956 (filed by year).

** CJ **

MOUNTED SCALES FROM THE NORTH PACIFIC BASIN

YEARS: 1940, 1942, 1949-56

SIZE: 12 boxes

DESCRIPTION

This Record Group has scale samples (on microscope slides and as impressions) from all North American salmon species, especially sockeye. Some Dolly Varden and steelhead scales are also present. Most of the samples are primarily from the central and northern B.C. coast. The rest came from Asia, Alaska, southern B.C. and the Columbia River. One series of sockeye scale impressions, in Box 9, was taken from various areas of the body, presumably to determine the "preferred area" for sampling. The scales were salvaged from a PBS fire and probably came from (or were held by) the Salmon Stock Assessment investigation.

HISTORY/SOURCE: T. Bilton?

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Salmon / Fish

Life Stage

Ocean fish / Mature

Statistical Area

3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-4 (Babine) / 8 (Bella Coola) / 9 (Rivers In.) / 10 (Smith In.) / 21-22 (Nitinat) / 29 (Fraser R.)

Location

High Seas / USSR / Sea of Japan / Bering Sea / Alaska / Adak Is. (Alaska) / Attu Is. (Alaska) / Nass R. (3) / Skeena R. (4) / Lakelse R. (4-2) / Babine system (4-4) / Port John (8) / Dean Chan. (8) / Burke Chan. (8) / Rivers In. (9) / Wannock R. (9) / Owikeno system (9) / Smith In. (10) / Johnstone Str. (12-13) / Nitinat L. (22) / Fraser R. (29) / Columbia R.

Aspect

Aging methods / Experimental fishing / Freshwater fish / Scales / Scale impression cards / Test fishing / Weirs

REGISTER: RECORD GROUP CJ

CJ/1/-(entire box) Approx. 2600 sockeye scale samples from: Smith In., (1949-50), Port John (1950), Rivers In. (1949), Skeena R. (1949) and Nitinat (1940).

CJ/2/-(entire box) Sockeye scales from Rivers In., Nass R. and Skeena R., 1950.

CJ/3/-(entire box) Sockeye scales from Rivers In. (1950) and Skeena R., Smith In., Dean Chan. and Burke Chan. (1951).

CJ/4/-(entire box) Sockeye scales from Rivers In. and Nass R. (1951) and Wannock and Skeena Rs. (1952).

CJ/5/-(entire box) Sockeye scales from Rivers In. and Skeena and Nass Rs., 1952.

CJ/6/-(entire box) Sockeye scales from Smith In., the Lakelse R. fence and Dean and Burke Chans. (1952), and Smith In. and Skeena R. (1953).

CJ/7/-(entire box) Sockeye scale samples from Rivers In., Dean and Burke Chans. and Nass R. (1953), and Nass and Skeena Rs. (1954).

CJ/8/-(entire box) Sockeye scale samples from: (1)Skeena R. (1954); (2)Sea of Japan, US S.R., Nass R., Rivers In. and Smith In. (1955); and (3)Skeena R. and High Seas (including Bering Sea parasitology samples), 1956.

CJ/9/-(entire box) (1)Sockeye scales from the Babine system, Smith In. and High Seas (1956). The H/S samples include parasitology samples from the Bering Sea as well as the N. Pacific. (2)Pink scales from Skeena R. Test Fishing, Lakelse R. and the H/S (1956). (3)Dolly Varden scales from Skeena R. Test fishing (1956). (4)Scales from marked Lakelse sockeye (1950-51). (5)Scales from an unidentified spp. (sockeye?) from Owikeno L. (1951). (6)A series of scale samples from Fraser sockeye taken from various parts of the body in 1942 (an investigation of the "preferred area" for scale sampling?).

CJ/10/-(entire box) Scales from: Steelhead, chinook, chum and coho from the High Seas (1956), chinook, coho and chum from Skeena R. test fishing (1956) and chum from Johnstone Str. (1950).

CJ/11/-(entire box) Sockeye scales, 1956: (1)from Alaska, Rivers In. and the Fraser R. and Columbia R. systems (all parasitology samples); (2)from Skeena R. test fishing; and (3)from Attu and Adak Islands in the Aleutians; and (4)from Rivers In. and the Nass system.

CJ/12/-(entire box) Sockeye scale samples from Rivers and Smith Ins. and Dean and Burke Chans. (1954) and from Rivers In., Skeena R. and Skeena R. Test fishing (1955).

** CK **

SCALES AND SAMPLING DATA

FROM EXPERIMENTAL AND COMMERCIAL FISHING AND FROM SPAWNERS

YEARS: 1940-42,1945,1948-65,1968-69,1971-73

SIZE: 5 boxes

DESCRIPTION

1. The first sub-group has scale samples or scale impressions, with some associated sampling data. Offshore samples came from research vessels and Japanese commercial vessels in the N. Pacific and from the weatherships at Station "P". Some of the salmon had been collected for parasitology, meristic and blood studies as well as for H/S tagging. Inshore samples came from the commercial fisheries in B.C., from research studies such as the Chatham Sd. tagging program of 1958 and from test fishing in the Skeena River. Freshwater samples range from Japan, around the N. Pacific to the Columbia River. Most are adult salmon scales but there are scales from resident fish in some Skeena lakes and scales from coho smolts at Lymn Cr.

Files: 1/1-22,24-46; 2/1-7,9-34; 3/1-2; 5/10-25.

2. The second sub-group has recovered tags, field notes, maps of rivers and echograms from the Johnstone Str. pink tagging program in 1959. Much of the file contents deal with the tag recovery effort through the use of weirs and stream surveys.

Files: 3/3-4; 4/1; 5/1-9.

3. The last sub-group is mostly sampling data. One file has lengths (with error estimates) for pinks and chum from Namu, Johnstone Str. and the Fraser R. (1956). Another has lengths, weights and sexes of sockeye spawners in the Owikeno system (1963) and notes regarding these fish. The largest segment has files with 1964-65 sampling data (1)from salmon landings; (2)from hatchery reared juvenile sockeye and (3)from US recoveries of sockeye that were tagged in Area 4.

Files: 1/23; 2/8; 4/2-25.

HISTORY/SOURCE: Warehouse fire (T. Bilton?)

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Steelhead / Fish

Life Stage

Fry / Smolt / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

1 (North Queen Charlottes) / 2E (East Queen Charlottes) / 2W (West Queen Charlottes) / 3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-3 (Upper Skeena-Bulkley) / 4-4 (Babine) / 5 (Grenville-Principe) / 6 (Butedale) / 7 (Bella Bella) / 8 (Bella Coola) / 9 (Rivers In.) / 10 (Smith In.) / 12 (Alert Bay) / 13 (Quathiaski) / 14 (Comox) / 15 (Toba In.) / 16 (Pender Harbour) / 17 (Nanaimo) / 18 (Cowichan) / 19 (Victoria) / 20 (Sooke) / 21-22 (Nitinat) / 23 (Barkley Sd.) / 24 (Clayoquot) / 25 (Nootka) / 26 (Kyuquot) / 27 (Quatsino) / 29 (Fraser R.) / 29-1 (Lower Fraser) / 50 (Georgia Str.) / 51-1 (E. coast of Vancouver Is.) / 51-2 (W. coast of Vancouver Is.) / 54 (Queen Charlotte Islands)

Location

High Seas / Station 'P' / Uebetsu R. (Japan) / Tokachi R. (Japan) / Ishikari R. (Japan) / Nishibetsu R. (Japan) / Shizunai R. (Japan) / USSR / Blizna L. (USSR) / Bering Sea / Alaska / Adak Is. (Alaska) / Attu Is. (Alaska) / Bristol Bay (Alaska) / Wood R. (Alaska) / Ugashik R. (Alaska) / Naknek R. (Alaska) / Kvichak R. (Alaska) / Egegik R. (Alaska) / Kodiak Is. (Alaska) / Karluk R. (Alaska) / Cook In. (Alaska) / Fish Cr. (Alaska) / Queen Charlotte Islands (54) / Skidegate (2E) / Nass R. (3) / Steamer Pass. (3) / Tracy Bay (3) / Union Bay (3) / Skeena R. (4) / Chatham Sd. (4-1) / Smith Is. (4-1) / Kitwanga system (4-2) / Moricetown Falls (4-3) / Bear L. (4-3) / Sustut L. (4-3) / Babine system (4-4) / Mikado Bay (5) / Principe Chan. (5) / Endhill Bay (5) / Mink Trap Bay (5) / Dean Chan. (8) / Burke Chan. (8) / Namu (8) / Bella Coola (8) / Tallheo Pt. (8) / Port John (8) / Hooknose Cr. (8) / Atnarko R. (8) / Rivers In. (9) / Wannock R. (9) / Owikeno system (9) / Smith In. (10) / Johnstone Str. (12-13) / Nimpkish system (12) / E. coast of Vancouver Is. (51-1) / Glendale R. (12) / Keogh R. (12) / Cluxewe R. (12) / Adam R. (12) / Tsitika R. (12) / Klinaklini R. (12) / Kakweiken R. (12) / Wakeman R. (12) / Phillips Arm (13) / Phillips R. (13) / Georgia Str. (50) / Quatam R. (13) / Homathko R. (13) / Southgate R. (13) / Orford R. (13) / Apple R. (13) / Lymn Cr. (14) / Toba R. (15) / Brem R. (15) / Skwawka R. (16) / Nanaimo / Departure Bay (17) / Cowichan Bay (18) / Sooke / W. coast of Vancouver Is. (51-2) / Barkley Sd. (23) / Imperial Eagle Chan. (23) / Sproat R. (23) / Stamp Falls (23) / China Cr. (23) / Nootka Sd. (25) / Kyuquot Sd. (26) / Klaskish R. (27) / Winter Harbour (27) / Quatsino Sd. (27) / Fraser R. (29) / Steveston / Washington State / Quinault L. (Wash.) / Bonneville (Oregon) / Columbia R.

Aspect

Body size / Body weight / Coastal fisheries / Echo sounding / Experimental fishing / Fluvial morphology / Freshwater fish / International cooperation / Mapping / Marine fish / Pelagic fisheries / Population number / Scale impression cards / Scales / Sex ratio / Spawning grounds / Stomach content / Tagging / Weirs

REGISTER: RECORD GROUP CK

CK/1/1-9: Scale books from sockeye which were sampled for parasitology studies:

...1/1-3 1956 samples: (1)Bering Sea and N. Pacific, (2)Fraser and Skeena Rs. and Rivers Inlet and (3)Adak and Attu Islands.

...1/4-9 1957 samples: (1)High Seas; (2)Skeena and Nass Rs.; (3)Washington/Oregon (Quinault L., Bonneville and Columbia R.) and (4)Alaska (Wood, Ugashik, Karluk, Naknek, Kvichak, Egegik and Wood Rs., Kodiak Is. and Bristol Bay); and (5)Japanese High Seas (H/S).

CK/1/10 Scales from chum that were sampled for blood - Skeena R. Test Fishing, Fraser R. and Kyuquot Sd., 1959.

CK/1/11 [No file]

CK/1/12 Steelhead scales from various B.C. areas with associated capture data and sex, length and weight data, 1948-57.

CK/1/13-22: Scale books:

...1/13 Misc. fish spp., including trout, from the Kitwanga system, 1945.

...1/14 Chinook, chum, pink and coho from Steamer Pass. and off Smith Is., 1945.

...1/15 Sockeye from Mikado Bay (Principe Chan.), 1945.

...1/16 Sockeye from Endhill Bay (Principe Chan.), 1945.

...1/17 Sockeye from Dean and Burke Chans., 1951-54.

...1/18 Sockeye from Sproat R., Stamp Falls, Moricetown, Klaskish R. and Wannock R., 1950-52.

...1/19 Canadian meristics samples.

...1/20 Unknown spp. from Fraser R., 1957.

...1/21 Chinook from Sooke traps, Cowichan Bay and Phillips Arm, 1951.

...1/22 Pinks from Steveston, 1945.

CK/1/23 Lengths (with experimental error estimates) for pinks and chum from Namu, Johnstone Str. and Fraser R., 1956.

CK/1/24-41: Scale impressions from:

...1/24 Skeena R. test fishing - chinook and coho, 1958-59.

...1/25 Skeena R. pink and sockeye, 1957-58.

...1/26 Rivers Inlet sockeye, 1958.

...1/27 Barkley Sd. chum, 1941.

...1/28	Smith Inlet sockeye, 1958.
...1/29	Chum from "Area 1/4" (Areas 1-4?), 1957.
...1/30	Georgia Str. coho, 1957.
...1/31	Chum from the Queen Charlotte Is., 1940.
...1/32	Chum from Imperial Chan., 1941.
...1/33	Nanaimo coho, 1973.
...1/34	Nimpkish sockeye, pink and coho, 1969.
...1/35	Fraser R. chum, 1957-58.
...1/36	Chum from the Queen Charlotte Islands, 1941.
...1/37	Nootka Sd. chum, 1941.
...1/38	Nass R. sockeye, pinks and chum, 1957-58.
...1/39	Miscellaneous - Area and spp. unknown.
...1/40	Babine sockeye smolts, 1968.
...1/41	Skidegate chum, 1942.
CK/1/42	Scales from chinook and coho troll catches off WCVI.
CK/1/43	Pink, sockeye and coho scales from misc. areas, 1955.
CK/1/44	Pink and sockeye scales from Winter Harbour, 1964.
CK/1/45	Scales from Alaska and from the Japanese mothership fishery (unknown spp.), 1959.
CK/1/46	Mounted scales (unknown spp. and area), 1950.
CK/2/1-7:	Scales in envelopes and books:
...2/1	Lymn Cr. coho smolts (Mason), 1971-72.
...2/2	Bella Coola (Tallheo Pt.) sockeye, 1955.
...2/3	Smith In. sockeye, 1955.
...2/4	Rivers In. sockeye, 1955.
...2/5-6	Rivers In. sockeye escapement (Owikeno system), 1955.
...2/7	"West coast trip", 1950.

CK/2/8 Notes on sockeye spawners from Rivers In., with data on lengths, weights and sexes and discussion of the fish culture program, 1963.

CK/2/9-23: Scales:

...2/9 Regenerated sockeye scales, 1945.

...2/10 Smith In. sockeye, 1945.

...2/11 Mink Trap Bay sockeye, 1945.

...2/12 Coho from the W. coast of Vancouver Is., including Quatsino Sd., 1949.

...2/13 Port John coho, 1950.

...2/14 Port John chum, 1950.

...2/15 Unknown spp. from Port John, 1951.

...2/16 Port John sockeye, 1957.

...2/17-18 Port John sockeye, 1960-61.

...2/19 Port John pinks, 1965.

...2/20 Alaskan and Columbia R. sockeye, 1956.

...2/21 Sockeye from Blizna L. (USSR), 1957.

...2/22-23 Russian sockeye, 1955.

CK/2/24-26 Scales and scale impressions from the weathership at Station 'Papa', 1962-63 and 1971.

CK/2/27 Notebooks from the weathership "Stonetown", with sockeye and coho scales and observations on stomach contents, 1964.

CK/2/28-3/2: Scales:

...2/28 Pinks from mixed Areas, 1955.

...2/29 Tracy Bay (Wales Is.) chinook, 1955.

...2/30-32 Sockeye, chum and coho from mixed Areas, 1955.

...2/33 Cowichan Bay chinook, 1961.

...2/34 Sockeye from Fish Cr. (in Cook In., Alaska), 1962.

...3/1 Queen Charlotte Is. chum, 1941.

...3/2 1958 scale samples: (1)Atnarko R. sockeye; (2)Hooknose Cr. (Port John) sockeye; (3)Union Bay gray cod; (4)China Cr. (Vancouver Is.) sockeye; (5)sockeye samples for parasitology studies; (6)"spawning ground measurements"; (7)Namu "measurements only"; (8)Bear L. sockeye and lake trout; (9)Moricetown Falls sockeye; (10)Sustut L. sockeye; (11)sockeye scales from "outside" tagging in the Chatham Sd. area (Areas 3-5); (12)scales from dart tagged sockeye; and (13)Japanese H/S and E. coast of Vancouver Is. chum.

CK/3/3-4 Tags recovered from pinks in the Skwawka R. (by day recovered), 1959.

CK/4/1 Tags recovered from pinks in the Glendale R., 1959.

CK/4/2-7 1964 sampling sheets from Prince Rupert landings of: (1)sockeye, pinks and chum from Area 3; (2)sockeye from Area 4 (lengths only); (3)Area 1 and 2 catches (summary sheets); and (5)sockeye from Areas 5, 6, 7, and 9 (lengths only).

CK/4/8-10: Sampling data sheets (lengths and weights):

...4/8 Sockeye from Areas 4, 5 and 29 and pinks from Areas 4 and 5, 1965 (duplicate copies).

...4/9 "Tank fish" (sockeye fry and smolts), 1964-65.

...4/10 US recoveries of sockeye that were tagged in Area 4, 1964.

CK/4/11-25: Sampling data sheets from landings of commercial catches landings, 1964:

...4/11 Area 2.

...4/12 Area 4.

...4/13 Area 7.

...4/14 Area 8.

...4/15 Area 9.

...4/16 Area 10.

...4/17 Area 12.

...4/18 Area 13.

...4/19 Area 16.

...4/20 Area 20.

...4/21 Area 23.

...4/22 Area 24.

...4/23 Area 29.

...4/24 Area 25.

...4/25 Area 40.

CK/5/1-9: Johnstone Str. pink tagging program, 1959:

...5/1-6 Field notes from Keogh, Cluxewe and Phillips Rs., the Keogh R. fence and tagging operation and Adam, Tsitika, and Quatam Rs.

...5/7 Echograms from Departure Bay.

...5/8-9 Maps of the Homathko, Southgate, Klinaklini, Toba, Phillips, Kakweiken, Cluxewe, Adam, Keogh, Brem, Orford, Apple, Glendale, Quatam and Wakeman Rs.

CK/5/10-25: Scale impressions from Japanese samples:

...5/10-12 Whole samples of chum, pink and sockeye from cruises 1 and 2 by the "Etsuzan", 1960.

...5/13-15 Chum and chinook from research vessels "Takuyo", "Eiko" and "Etsuzan", 1956.

...5/16-20 Chum from "Ubetsu R. R." (Yubetsu R. or Uebetsu R.?), Tokachi R., "Ishikario" (Ishikari?) R., Nijibetsu and Shizunai R., 1956.

...5/21 Pinks and chinook from the "Eijin" (a mothership), 1957.

...5/22 Chinook and chum from the "Kano" (a research vessel), includes data cards, 1957.

...5/23 Chinook and chum from the "Etsuzan" (a research vessel), 1957.

...5/24 Chinook and pinks from the "Miyajima" (a mothership), 1957.

...5/25 Catches from all areas, 1957.

** CM **

ECHOGRAMS OF JUVENILE SOCKEYE AND OTHER FISH IN BABINE LAKE

YEARS: 1977-78

SIZE: 3 boxes

DESCRIPTION

CM has echo sounder charts from surveys conducted on Babine Lake in 1977-78. The subject was the juvenile sockeye population in the main basin and the objectives were to enumerate the sockeye and determine their movements in some detail. Some echograms are from trials which were made to estimate the accuracy (by comparing target numbers with trawl and seine catches) and precision (by making repeated runs) of the acoustic methods. Near-surface distributions were assessed using an upward-facing transducer on the lake bottom. Winter distributions and vertical migrations were assessed by stationary sounding through holes in the ice. The last file has charts of Babine L. showing the echo sounding locations that were used in enumeration surveys.

HISTORY/SOURCE: K. Simpson

INDEX TERMS

Species

Sockeye / Fish

Life Stage

Fry / Juvenile / Age unspecified or non-applicable

Statistical Area

4 (Skeena R.) / 4-4 (Babine)

Location

Babine L. (4-4)

Aspect

Abundance / Calibration / Diurnal variations / Echo surveys / Experimental fishing / Feeding migrations / Freshwater fish / Horizontal distribution / Lake morphology / Population density / Purse seining / Trawling / Vertical distribution / Vertical migrations

REGISTER: RECORD GROUP CM

CM/1/1-3/1: Babine L. echo-sounder charts (echograms) of juvenile sockeye, 1977-78:

...1/1 Enumeration surveys (half mile sounding runs throughout the main basin).

...1/2 Seining/sounder comparisons and through-ice sounding.

...1/3 Fry dispersal surveys (tracking the southward and offshore movement of Fulton R. fry in May and June).

...2/1 Mid-water trawling operations - trawling/sounder comparisons.

...2/2 Benthic transducer surveys 1-4 (determining near-surface distributions using a transducer facing upward from the lake bottom and connected to the sounder on shore).

...2/3 Benthic transducer surveys 5-6.

...3/1 Sounder trials to measure variations (by replicating sounder transects) and beam dimensions (using artificial targets and slow speed transects).

CM/3/2 Charts of Babine L. showing the echo sounding locations for enumeration surveys.

** CN **

SKEENA/BABINE DATA (Primarily from J. McDonald and H. Smith)

YEARS: 1928,1944-81

SIZE: 15 boxes

DESCRIPTION

1. The source for 'CN' was J. McDonald. Most of the group is data from his evaluation of the Babine Sockeye Development Program. Specifically, his objectives were to measure the growth and survival of the fry produced in the new artificial spawning channels at Fulton R. and Pinkut Cr. and to estimate the effect these additional fry had on the returns of Babine sockeye. There is fry marking data from Fulton and Pinkut, fry sightings from beach surveys, fry catch and mark recovery data from experimental fishing in Babine L. and adult mark recovery data.

Files: 1/1-20; 2/1-11; 3/1-24; 4/1-22; 5/1-12; 6/8-16; 7/1-19,21-30; 8/1-16; 9/1-4; 11/12-13,16-17; 13/15-18; 14/1-3,10.

2. The second largest sub-group has Babine smolt data collected by H. Smith, mostly from his 1966-71 program that assessed the effect of smolt size and time of downstream migration on smolt to adult survival and age of return. This was attempted by distinctively marking and tagging different size groups in different parts of the 1966-68 smolt runs. The tags are called pin, magnetic, or wire tags in different files and were wire nose tags which were colour coded. There is also smolt sampling data and abundance estimates from routine Babine fence operations and a discussion of new methods to estimate daily smolt migrations.

Files: 1/7,18; 7/20; 10/9-16; 11/1-17; 12/1-18,20-29; 13/1,3-19; 15/1. 2-24.

3. The third sub-group has other data on Babine sockeye and pink stocks. It includes (a)data from initial Babine studies in the 1940's; (b)some of W. Johnson's 1958-60 work on juvenile sockeye in the lake; (c)analysis of tagging data to determine run timing of adult sockeye from the fishery, through the Babine fence and on to the spawning grounds; (d)more tagging data used to test a method of distinguishing between Fulton/Pinkut and Babine R. sockeye (using scale characters and body lengths in a multiple discriminant analysis); and (e)some files on other miscellaneous topics.

Files: 6/1-7; 10/8; 14/5,20; 15/4-9,11.

4. There are a few files in Box 14 from the early 1950's, dealing with sockeye fry and adults in Schulbuckhand and Williams Crs. in the Lakelse system.

Files: 14/13-16,19,22,24.

5. Files 10/1-8 have data from the Skeena Pink investigation (ca. 1957-63). They have diel series of fry catches from trapping in several Skeena

tributaries and discharge data for the Skeena River. The effect of light and stream discharge on the migration rate of pinks was being analysed.

6. Finally, there are the miscellaneous files. Some of the topics are: (a)effect of formalin on lengths and weights of sockeye fry from Fulton R., with length/weight regressions; (b)administration and planning documents for field programs and regional research; (c)photos of field activities in the Skeena area; (d)enumeration and sampling data from Skeena fisheries, fences and streams; and (e)catch, total escapement and stream escapement data for salmon stocks in the Skeena system, including estimates of migration times.

Files: 8/5-10; 10/2; 13/2,20; 14/4,6-9,11,12,17,18,21,23; 15/1-3,10.

HISTORY/SOURCE: J. McDonald and H. Smith

INDEX TERMS

Species

Sockeye / Pink / Chum / Chinook / Kokanee / Masu / Fish / Plankton / Other

Life Stage

Egg / Alevin / Fry / Smolt / Juvenile / Ocean fish / Mature / Age unspecified or non-applicable

Statistical Area

1 (North Queen Charlottes) / 3 (Nass R.) / 4 (Skeena R.) / 4-1 (Lower Skeena) / 4-2 (Terrace) / 4-4 (Babine) / 5 (Grenville-Principe) / 9 (Rivers In.) / 29 (Fraser R.) / 51-2 (W. coast of Vancouver Is.)

Location

High Seas / Amur R. (USSR) / Kamchatka (USSR) / Prince Rupert / Skeena R. (4) / Shames Slough (4-2) / Lakelse R. (4-2) / Williams Cr. (4-2) / Schulbuckhand (Scully) Cr. (4-2) / Kitwanga R. (4-2) / Kispiox R. (4-2) / Kisgegas (4-4) / Babine R. (4-4) / Babine R. (Lower) (4-4) / Babine system (4-4) / Nilkitkwa L. (4-4) / Babine R. (Upper) (4-4) / Babine L. (4-4) / 5-Mile Cr. (4-4) / 9-Mile Cr. (4-4) / Morrison R. (4-4) / Fulton R. (4-4) / Tachek Cr. (4-4) / Port Arthur (4-4) / Sockeye Cr. (4-4) / Pierre Cr. (4-4) / Twain (Twin) Cr. (4-4) / Pinkut (15-Mile) Cr. (4-4) / Shass (Grizzly) Cr. (4-4) / W. coast of Vancouver Is. (51-2) / Fraser R. (29) / Washington State / Columbia R.

Aspect

Abundance / Age composition / Bathythermographic data / Body size / Body weight / Calibration / Catch composition / Catch/effort / Coastal fisheries / Diurnal variations / Endoparasites / Escapement / Experimental culture / Experimental fishing / Feasibility / Fecundity / Fins / Fish counters / Freezing storage / Freshwater fish / Gear construction / Gillnets / Growth /

Horizontal distribution / International cooperation / Length-weight relationships / Light effects / Limnology (Physical) / Marking / Mathematical models / Mesh selectivity / Methodology / Midwater trawls / Mortality / Nursery grounds / Photographs / Population number / Predation / Purse seining / Racial studies / Redd sampling / Regional variations / River discharge / Sampling (Statistical) / Scale impression cards / Scale reading (Ages) / Scale reading (Circuli measurements) / Scales / Sex ratio / Size distribution / Spawning migrations / Stock identification / Stomach content / Stream flow / Survival / Tagging / Temperature effects / Trap fishing / Vertical distribution / Weirs / Yield predictions / Zooplankton

REGISTER: RECORD GROUP CN

CN/1/1-20: Recovery of adult sockeye (1968-76): (1)from Fulton and Pinkut fry markings (pelvic fin clips) of 1965-67 and 1970-71 brood years (McDonald's work related to the Babine Sockeye Development Program, BSDP); and (2)from Smith's pin-tagging of Babine smolts (Adipose fin clips) in 1966-68:

...1/1-2 Sampling records for adults with pelvic marks recovered at Pinkut Cr., Fulton R., and upper and lower Babine R., 1973.

...1/3 "Returns of marked fry in fishery", 1972.

...1/4 Recoveries at Pinkut Cr., Fulton R. and upper and lower Babine R., 1972.

...1/5 Mark recovery (MR) forms with data on recoveries of pelvic marks from Twin and Pierre Crs. and upper and lower Babine R., 1970. These forms give sampling data and recovery information, including an illustration of the mark.

...1/6 Pelvic MR forms from Fulton R., 1970.

...1/7 Recoveries in commercial and test fishing catches of Babine sockeye with pelvic and adipose clips, 1970.

...1/8 Data on recoveries of pelvic marks from Prince Rupert landings, with lengths, weights, ages, scale measurements and scale impressions, 1969.

...1/9-10 Pelvic MR data, with length and sex information for Areas 1,3 and 4, 1969.

...1/11 Pelvic MR data, with lengths, weights and ages, from Test fishing (T.F.) and commercial catches in Areas 3 and 4, 1969. Includes "days open" data and a record of the number of samples for the season - 1969.

...1/12-14 Pelvic MR data, with lengths and ages, from Fulton R., Fulton channels, upper and lower Babine R. and Pinkut Cr., 1969. Also has daily summaries of marks recovered.

...1/15 Pelvic MR data, with lengths and ages, from the "early" Babine streams (Pierre, Twin, 9-Mile, 5-Mile, Tachek, Sockeye and Grizzly), 1969.

...1/16 Pelvic MR data from the Morrison R. fence, with lengths and ages, 1969.

...1/17 Pelvic MR data from Fulton R., with scale samples and lengths and ages, 1968.

...1/18 Record of numbers of adult sockeye examined for pelvic and adipose marks in the Babine system, data on the mark recoveries, and field observations, 1969.

...1/19 "Spawning ground recoveries of adult sockeye marked as fry and rough compilation of returns from various brood years". Also includes an examination of natural marks. 1970-76.

...1/20 Examination of the incidence of naturally missing pelvic fins with documentation of recovery of natural marks (Areas 3,4, and 9), 1962-69.
CN/2/1-5: Pelvic MR data, with lengths and ages, 1974:

...2/1 Babine spawning grounds.

...2/2 Pinkut Cr. (with daily summaries).

...2/3 Babine R. (with daily summaries).

...2/4-5 Fulton R. and channels.

CN/2/6 Pelvic MR forms and sampling summaries for Fulton Chan. (with ages and lengths), 1975.

CN/2/7 Instructions and objectives for mark recovery sampling, 1975.

CN/2/8 MR forms for Pinkut spawning channel and lengths and ages of sockeye in upper Babine R. and Fulton Channels, 1975.

CN/2/9 Mark sampling data (lengths and ages) from upper and lower Babine R., 1976.

CN/2/10-11 MR forms from Pinkut and Fulton Rs. (fence and channel sampling), 1976.

CN/3/1-5/12: Field books for McDonald's juvenile sockeye studies in Babine L., related to the Babine Sockeye Development Program (BSDP) (1966-68, 1971-73 and 1977):

...3/1 Procedures for netting and stomach analysis, 1966-67.

...3/2-7 "Tahlok" seining and trawling records showing location, depth, catch and portion of catch sampled for each set, 1966.

...3/8 Diary of lake operations (Port Arthur camp and "Tahlok"), 1966.

...3/9 Recoveries in the lake of fry marked at Fulton R. (catch records), 1966.

...3/10 Beach survey observations of fry abundance, 1966.

...3/11-18 "Tahlok" netting records, showing set location, catch and portion sampled, 1967.

...3/19 Temperatures and data from beach surveys of near-shore fry distribution, 1967.

...3/20 MR records from the "Tahlok", 1967.

...3/21-24 Records from Isaac-Kidd trawling, showing catches, location and portion sampled, 1967.

...4/1-6 Babine L. seining records, with location, catch and portion sampled in each set, 1968.

...4/7 Mark recoveries in lake catches of juvenile sockeye and kokanee, 1968.

...4/8-12 Seining records, by set, with location, catch and portion sampled, 1971.

...4/13-14 Midwater trawl records, by tow, with location, depth, speed and catches, 1971.

...4/15 Records of plankton tows in Babine L. with location, depth, speed and sample nos., 1971.

...4/16 Mark recoveries in seining catches of kokanee and juvenile sockeye, 1971.

...4/17-21 Seining records, by set, with location, catch, portion sampled and marks found, 1972.

...4/22 Mark recoveries in lake catches of underyearling sockeye and kokanee, 1972.

...5/1 Summary of seine catches and marks recovered, 1973.

...5/2-6 Netting records, by set, with location and catch, 1973.

...5/7-12 Seining records, by set, with locations and catches, 1977.

CN/6/1-7: Early Babine L. fish studies by Withler (1944-48) and Johnson (1958 and 1960):

...6/1 Gillnet catches in Babine and Nilkitkwa Ls. with summaries of relative abundance by species. Also has stomach contents analyses/food study, 1946.

...6/2 General lake survey assessing the relative abundance of fish populations and their food, 1945.

...6/3 Net catches, with length and weight data and an analysis on distribution of fish in relation to water temperature, 1947.

...6/4 Miscellaneous data and information re: experimental netting records, trolling experiments and assessment of the effect of mesh size, 1947-48.

...6/5 Gillnet catches and sampling data (lengths, weights, sex, ages and stomach contents), 1958.

...6/6 Kokanee sizes in Babine from gillnetting catches and spawner sampling, 1958-59.

...6/7 Gillnet set data (e.g. depths) and catches, 1960.

CN/6/8-7/19: McDonald's 1965-68 juvenile sockeye studies in the Babine system (cont'd):

...6/8 Plans of nets that were used, or were considered for use, on Babine L., 1965-70.

...6/9 Set records and catches of age 0. sockeye (with charts), 1964.

...6/10 Holding pen experiments to assess the effect of water temperature on growth of sockeye fry - daily log with temperature records, mortalities and feed regimen, 1965.

...6/11 1965(1)Holding pen experiments at Port Arthur camp (feasibility of holding until adipose fin can be clipped). Includes data on effect of formalin on lengths and weights of preserved samples. (2)Beach survey data. (3)Objectives and procedures for sockeye evaluation program.

...6/12 Sampling data for juvenile sockeye, kokanee and other lake spp., 1965.

...6/13 Netting records from a general survey (showing locations, catches, etc.), 1965.

...6/14 Charts of beach survey locations for assessing fry distributions, 1965.

...6/15 Location codes and observational data from beach surveys, 1965.

...6/6 "Mean size of fry found on various beaches", 1965.

...7/1 Length frequencies of fry by area and date of capture, 1966.

...7/2 Age determinations and scale analyses for underyearlings, 1966.

...7/3 Seining and sampling procedures, 1966.

...7/4 Beach surveys and recoveries of marked sockeye fry, including average lengths and general observations, 1966.

...7/5 Notes on the Babine sockeye evaluation program, 1966-67.

...7/6 Ages and growth rates of fry (with length frequencies), 1966.

...7/7-9 Catch records and analysis of recoveries of marked fry. Includes length frequencies and beach survey data, 1966.

...7/10 Prospectus with procedures and overview for evaluation of Babine Development (by Narver), 1966.

...7/11 Diary of lake operations (R. Scarsbrook), 1966.

...7/12-13 MR data for sockeye underyearlings in Babine L. and at the mouth of Fulton R., with notes on MR procedures, 1966.

...7/14 Fry marking and release data from Fulton R., including mortalities from trapping, handling and marking, 1966.

...7/15 Lengths and weights of river and spawning channel fry from Fulton R., 1966.

...7/16 Comparison of lengths and weights of sockeye fry in seine and trawl catches, 1967.

...7/17 Lengths at release of (marked?) sockeye fry from Fulton R. and Fulton channel, 1967.

...7/18 MR data from purse seining and data on the fishing depth of the net, 1967.

...7/19 Summaries of netting sessions, 1967.

CN/7/20 Scale measurements and ages from smolt marking (pin-tagging?) program, 1967.

CN/7/21-8/16: 1965-68 juvenile sockeye studies (cont'd):

...7/21 Results and comments on marking mortality experiments at Fulton R., 1966.

...7/22-23 Fin clip regeneration tests using holding tanks at Fulton R. - includes lengths and weights of sockeye fry, 1966-67.

...7/24 Seining procedures for vertical distribution studies and assessments of the movements of "river" and "channel" fry, 1967.

...7/25-27 Catches from Sessions I-III, with procedural instructions, 1967.

...7/28 Stomach contents of juvenile sockeye, by time of day and area of lake, 1967.

...7/29 Catches from special seining sessions, 1967.

...7/30 Trawl catches, 1967.

...8/1 Four series of water temperatures by station and depth from the summer and fall, 1967.

...8/2-3 Catches from netting Sessions IV and V, 1967.

...8/4 Computer coding sheets containing sampling data for age 0. sockeye, 1967.

...8/5-6 Effect of formalin, with time, on lengths and weights of sockeye fry - procedures, data and results, 1968-69.

...8/7-9 Effect of formalin on lengths and weights of sockeye fry in groups A-G - field record books, 1968.

...8/10 Effect of 10% formalin on lengths and weights (with length/weight conversion factors), 1968.

...8/11 Lengths of fry at time of marking, 1968.

...8/12-16 Records of seine catches in Sessions I-III and from special seining sets, with summaries, 1968.

CN/9/1-4: 1978-79 computer analyses of catches and sizes of underyearling sockeye in Babine L. (data obtained in 1966-68, 1971-73 and 1977):

...9/1 Length analysis (using 2-way ANOVA and Duncan's Multiple Range Test).

...9/2 Length vs. population density relationships (using multiple regression).

...9/3 Length/weight relationships.

...9/4 Catch analyses: (1)Duncan multiple range test on catch/set; (2)2 way ANOVA on catch/set; (3)regressions between abundance estimates; and (4)effect of light and wind on catches.

CN/10/1-7: Skeena R. pink fry enumeration program (1957-63):

...10/1 Report containing methods, an analysis of the program and some data.

...10/2 Skeena R. discharges, 1960-62.

...10/3-7 Diel fry trapping catches (assessing effect of current and light on migration rate): Kispiox R. (1961), Skeena R. locations (1960), Kitwanga R. (1961), Lakelse R. (1961-63) and Babine R. (1962).

CN/10/8 Survey of sockeye spawners in the Babine system and sampling pink redds in Shames Slough (procedures and summaries), 1964.

CN/10/9-13/1: (1)Babine sockeye smolt studies including release and recovery data from pin-tagging of smolts (H. Smith); and (2)some recovery data from McDonald's spawning channel evaluation (pelvic-clipped sockeye):

...10/9 Scale characteristics with lengths and weights, ("weighted values") from early and late smolt runs, 1961-74.

...10/10 Daily and daily cumulative estimates of the smolt run, 1976.

...10/11-13 Computer coding sheets with data on releases of pin-tagged smolts, 1966-68.

...10/14 Data on releases of pin-tagged smolts and their subsequent recovery as spawners in various areas in the Babine system, 1960's.

...10/15 Listing of the READA subroutine for H. Smith and a regression analysis for pin-tagged smolts (smolt size vs. release date).

...10/16 Analysis of "magnetic" tagging data, 1967.

...11/1-3 Pin-tagging of the Babine smolt run: Introduction and procedures, daily tag records, machine log, retention and mortality experiment, diaries and water temperatures in anaesthetic trough, 1966-68.

...11/4-5 Prince Rupert recoveries of pin-tagged sockeye, 1968.

...11/6-8 Pin-tag recoveries from Babine spawning streams, 1968-70.

...11/9 Fish freezing records from Prince Rupert, 1968-70.

...11/10-11 Pin-tag recoveries from Babine spawning streams, 1970-71.

...11/12-13 Sampling records from recoveries of pelvic-clipped and pin-tagged sockeye at Fulton R. (1970) and Pinkut Cr. (1969).

...11/14-15 Records of mark and tag recoveries from Prince Rupert, 1970-71.

...11/16-17 Recoveries of pin-tagged and pelvic-marked sockeye at Fulton R. and Pinkut Cr., 1971.

...12/1-3 Records of releases of pin-tagged smolts, 1966-68.

...12/4 Magnetic tagging program for Babine smolts: Statement of objectives and ancillary problems, 1971.

...12/5-6 Data on pin-tag releases, 1967.

...12/7 Fulton R. marking and Babine R. pin-tagging: Hypotheses, summaries, data and results, 1967-68.

...12/8 Recoveries from the 1966 pin-tagging of smolts, 1968-69.

...12/9 Proposals and instructions for Babine magnetic tagging, 1970-71.

...12/10 Release data (with sizes) and recovery data, 1966-68.

...12/11 Recoveries of pin-tagged sockeye in 1968.

...12/12 Magnetic tagging analysis: Summary and evaluation of the data, 1968-70.

...12/13 Pin-tag recoveries in 1970 (with a summary).

...12/14 Sampling data from pin-tag recoveries in the commercial fishery (Prince Rupert), 1968.

...12/15 Miscellaneous data re: smolt size and survival, 1969.

...12/16 Pin-tagging recoveries by size and release times, 1966-68.

...12/17 Mean dates of adult recoveries from Skeena canneries for early and late run smolts, 1969-71.

...12/18 Pin-tag recovery data showing time from tagging to recovery, survival and spawning area, 1966-69.

...12/19 [No file]

...12/20 Smolt enumeration: Staple tag releases and recoveries by day of release, 1962, 1966-68.

...12/21 Daily smolt outputs at Babine and their daily mean weights, 1967.

...12/22 Calculations for estimating daily smolt outputs from Babine L., 1951-63.

...12/23 Lengths and weights of unmarked smolts, 1968.

...12/24 Outlines and drafts for smolt manuscript, 1972-73.

...12/25 Reports on smolt production, 1951-53, 1960.

...12/26 Summary of smolt outputs at Babine L., 1951-67.

...12/27 1964 smolt data: (1)quantitative procedures and fin clipping requirements for getting daily, rather than total, smolt outputs; (2)daily mark releases and recoveries, with resultant daily abundance estimates; (3)tests of randomness of marks in trap catches and tests of efficiency of mark recovery; (4)trap catches, mean weights, mean and SD of lengths and circuli counts (including plus growth measures) - all by day of capture; (5)comparisons of photo-electric counter estimates with MR estimates and with visual estimates of rates of passage; and (6) 1965 morning and evening trap catches and mean weights, by day of capture.

...12/28-29 (1) "Basic Data on Babine Smolts, 1950-70" (guide for data processing of previously collected data, 1971); (2)"Babine/Nilkitkwa smolt migration, 1958"; (3)"Babine fence smolt data, format for data on cards and tape"; (4)"Daily and Accumulated Babine Smolt Migration, 1973-76"; and (5)lengths and counts of parasitized and non-parasitized smolts, 1974-78.

...13/1 Recoveries of adipose-clipped (pin-tagged) sockeye from Prince Rupert canneries, 1968-70.

CN/13/2 An analysis of recovery data (e.g. days out calculations) from 1950-52 taggings of chinook off SE Alaska, from data presented by Parker and Kirkness. Recoveries ranged as far south as the Columbia R., and included WCVI, Fraser R. and Washington State.

CN/13/3-14: Babine smolt studies (cont'd):

...13/3-5 Recoveries of pin-tagged sockeye from the Skeena R. commercial catch and from escapements (with length data), 1969-71.

...13/6-8 Pin-tag sampling of Fulton R. sockeye, 1969-71.

...13/9 Summaries of recoveries of pin-tagged sockeye in the catch and escapement, 1969.

...13/10 Data on recoveries of pin-tagged sockeye in the Prince Rupert area, 1970.

...13/11 Computer coding key for recording tagging mortality data, 1968-71.

...13/12-14 File report and raw data on recoveries of pin-tagged (adipose clipped) sockeye, 1968.

CN/13/15-18 Pelvic mark and pin-tag recovery and sampling data from Prince Rupert landings, 1968-69, 1971.

CN/13/19 Skeena Management Committee: Age composition of commercial catch, procedures for the pin-tag recovery program and a record of the marks recovered in streams, 1970-72.

CN/13/20 "Observations on spawning of the Amur and Kamchatka salmons" (Russian MS Report on pinks, chum and masu), 1928.

CN/14/1 Recovery effort for pelvic marked sockeye (McDonald): aging of spawners in the Babne system, 1972.

CN/14/2 Babine Sockeye Development Program (BSDP) - correspondence re: research programs, 1969-80.

CN/14/3 BSDP production data, 1959-81.

CN/14/4 A document by the Offshore Salmon Committee on protecting the resource from the foreign fishery (original revised copy), 1974.

CN/14/5 Observations on the upstream migration of sockeye fry in Babine R. and bird predation on the fry, 1977-78.

CN/14/6 Weekly catches, escapements and catch plus escapements for Skeena sockeye, 1956-63.

CN/14/7 Long term planning for west coast fishery and problems concerning Pacific salmon research, 1969.

CN/14/8 Material re: liaison with Fisheries Service and objectives for Pacific Region salmon research, 1970.

CN/14/9 Photos of Skeena R. salmon studies, 1950's and 1960's.

CN/14/10 BSDP proposals, reports and correspondence, 1960's.

CN/14/11 Enumeration and sampling data for Babine and other Skeena sockeye and pink stocks from streams, fences and commercial catches, 1946-63.

CN/14/12 Fry enumeration tables with mark release records above a fence and recovery records at the fence (unknown location, year and species).

CN/14/13 Counts and fecundities of sockeye spawners from Scully (Shulbuckhand) Cr., 1950-51 and 1954.

CN/14/14 Marking and recovery of sockeye fry at Williams and Scully Crs. and Lakelse L., 1954.

CN/14/15-16 Lakelse sockeye - "Fry production and factors limiting survival", with program summaries, 1952-54.

CN/14/17 Correspondence and reports re: PBS affairs and field work in the Skeena/Babine region., 1953-54.

CN/14/18 Annual budget and expenditures of the Skeena Salmon Investigations, 1956-57.

CN/14/19 Records of trapping sockeye fry at Williams Cr., 1955.

CN/14/20 Average weights of adult sockeye and tag recoveries at the Babine fence, 1946-62.

CN/14/21 Migration times of Skeena R. sockeye, 1944-58.

CN/14/22 Thread marking and recovery of Scully Cr. sockeye fry, 1952-53.

CN/14/23 Memos re: PBS affairs and salmon research, 1950's.

CN/14/24 Scully Cr. temperatures and water levels, 1950-53.

CN/15/1 Catch and escapement records for pink salmon in Area 5, 1952-60.

CN/15/2 Spawning summary for salmon streams in lower Skeena area, with weekly summaries of escapement, 1953.

CN/15/3 Inheritance of age in sockeye and predictions of runs from earlier escapements, 1950's.

CN/15/4 Compilation of data on recoveries of sockeye in the Babine system from taggings on the coast and at the Babine R. fence in 1945-48 and 1955-58 and from taggings at the Babine R. slide (Kisgegas) in 1953. Used to determine (1) temporal distribution of stocks passing the fishery and the fence and (2)migration durations.

CN/15/5 Tagging and recovery records from lower Babine R. (adult sockeye or pinks), 1953.

CN/15/6 Pink counts at Babine fence, 1954-63.

CN/15/7 1970 records of tagging adult sockeye at the Babine R. fence and recovery records from upper and lower Babine R., Fulton R. and Pinkut Creek. Lengths and four scale characters were used in a multiple discriminant analysis to assign tagged sockeye at the fence to either Pinkut/Fulton or upper/lower Babine River. The predictions were tested with the tag recovery data. Some tags were recovered in other streams also. There are 1962-69 summaries of discriminant function results vs. tagging results (by sex and age of sockeye).

CN/15/8-9 Sampling data from Babine spawning grounds with sockeye ages, lengths and scale measurements, 1967-68.

CN/15/10 Photos of field operations, 1950's-60's.

CN/15/11 Daily tagging records, with lengths, for 1970 racial study at Babine (see description of file 15/7).

CN/15/12-23 Daily and seasonal smolt outputs in the Babine system with experimental data and observations, 1951-73 (excepting 1964 and 1967).

CN/15/24 Summary of data on 2 year old smolts at Babine (outputs and sampling data), 1951-73.

** CO **

CANADA-US SALMON NEGOTIATIONS

YEARS: 1969-79

SIZE: 2 boxes

DESCRIPTION

This Record Group contains background data and preparatory material for salmon treaty negotiations with the US in the 1970's. The emphasis is on the technical (biological) aspects of the negotiations. The first part of the group is material dealing specifically with international problems with chinook and coho (the "Informal Committee on Chinook and Coho").

HISTORY/SOURCE: J. McDonald

INDEX TERMS

Species

Chinook / Coho / Salmon

Life Stage

Juvenile / Ocean fish / Mature

Statistical Area

All B.C. Areas

Location

British Columbia / Canada / US / Alaska / Washington State / Oregon

Aspect

By catch / Catch composition / Coastal fisheries / Conferences / Escapement / Exploitation / Fishery management / Fishery regulations / Fishery statistics / Fishing effort / Fishing grounds / Hatcheries / Historical account / Horizontal distribution / International agreements / International cooperation / Marking / Methodology / Migrations / Population characteristics / Stock identification / Survival / Tagging / Trolling

REGISTER: RECORD GROUP CO

CO/1/1-7: "Informal Committee on Chinook and Coho" (I.C.C.C.):

...1/1 Correspondence between the PBS and the Northwest Fisheries Center, US, 1970-75.

...1/2 I.C.C.C. meetings: Minutes, agenda, technical papers and data for negotiations, 1969-75.

...1/3 Technical Working Group (T.W.G.): Minutes and agenda of meetings, technical papers, proposals, strategies for negotiations and special consideration of the "shaker" problem and sizelimits, 1969-72.

...1/4 Misc. information on I.C.C.C. tagging and recovery programs (mainly US), enhancement, sampling procedures and negotiations, 1969-75.

...1/5 T.W.G. information on Can./US mark recovery programs, workshop agenda and Alaskan release and recovery data, 1976.

...1/6 T.W.G. cooperative sampling and tag recovery programs - procedures, correspondence and data.

...1/7 T.W.G. - workshop agenda, correspondence and texts regarding coded wire tagging, juvenile production and survival, US release and recovery data, hatchery returns and sampling programs, 1976.

CO/2/1-3 US/Canadian Technical Committee correspondence, minutes, treaty proposals and a discussion of the interception problem:

...2/1 Vol. I (1976-77).

...2/2 Vol. II (1976-77), also includes treaty drafts and enhancement proposals.

...2/3 Vol. III (1978-1979), including records of negotiations.

CO/2/4 Canadian/US salmon talks on problems of mutual concern: History of negotiation statements, proposals, compromises, etc., 1973-74.

CO/2/5 "A History of Canadian-US Salmon Fishery Relations Since the Turn of the Century", 1974.

CO/2/6 "Salmon Negotiations - Background", 1971.

CO/2/7 "US/Canadian Negotiations - Canadian and US Positions", 1975.

CO/2/8-9 "Background Technical Information: US/Canadian Negotiations on Pacific Salmon", nos. 2 and 3, 1976.

** CP **

GODFREY - MISCELLANEOUS

YEARS: 1927-59

SIZE: 1 box

DESCRIPTION

This box contains a group of files with an analysis, probably by H. Godfrey, of the average weights of pink and chum in B.C. catches in the 1927-1958 period. Another smaller group of files has data from several chinook tagging programs in B.C. from 1949 to 1956. There are also files on: (1)assessment of the effect of the Babine R. slide on sockeye; (2)some stomach contents data from chinook catches; (3)sampling data from coho catches at the Sooke traps; and (4)log books from the Juan de Fuca Str. coho tagging program in 1957-58.

HISTORY/SOURCE: H. Godfrey

INDEX TERMS

Species

Sockeye / Pink / Chum / Coho / Chinook / Salmon / Fish

Life Stage

Juvenile / Ocean fish / Mature

Statistical Area

All B.C. Areas

Location

High Seas / Queen Charlotte Islands (54) / Kisgegas (4-4) / Babine R. (Lower) (4-4) / Juan de Fuca Str. (19-20) / Sooke / Ucluelet / W. coast of Vancouver Is. (51-2) / Quatsino Sd. (27) / Point Grey (29)

Aspect

Abstracts / Annual variations / Barriers / Body size / Body weight / Catch composition / Coastal fisheries / Experimental research / Experimental fishing / Fish catch statistics / Fishermen statistics / Freshwater fish / Gillnetters / Locomotion / Long term changes / Methodology / Osmoregulation / Physical oceanography / Purse seines / Salinity tolerance / Sex ratio / Stomach content / Tagging / Trap fishing / Water temperature / Weirs

REGISTER: RECORD GROUP CP

CP/1/1 "Variations in annual average weights of B.C. pinks, 1944-58" (a ough draft with data), 1959.

CP/1/2 Fisheries Association - average weights of pinks (compilations), 1959.

CP/1/3 Fisheries Association - average weight of seine caught pinks, 1927-55.

CP/1/4-19 Fisheries Association - average weights of pink and chum (gillnet and seine catches), 1944-59 (by year).

CP/1/20 Fisheries Association - regulations re: determination of average weights for pink and chum.

CP/1/21 Rough draft (1959?): "Notes on the variation in the annual average weights of chum salmon in B.C." (1946-58).

CP/1/22 High Seas temperatures, 1943-44.

CP/1/23-24 Correspondence on general topics and the study of average weights of pink and chum, 1957-59.

CP/1/25 Seine and gillnet catches of pinks (% of weekly totals in each Area), 1951-56.

CP/1/26 Average weights of pinks in gillnet and seine catches, 1951.

CP/1/27 Abstract of: "Locomoter performance and osmoregulation in juvenile anadromous salmonids following abrupt environmental salinity change" (Hourston), 1958.

CP/1/28 "An Analysis of Fishing Licence Holders in B.C.", 1953-55.

CP/1/29 Babine R. slide study: Sockeye sampling data and tagging records at the slide site (Kisgegas) and counts, sex ratios, etc. at the Babine fence, 1952-53.

CP/1/30 Correspondence and calculations re: Bulletin no. 90 (W.S. Hoar), 1947.

CP/1/31 Miscellaneous data on average weights of pink and chum, 1931-53.

CP/1/32 Average weights of sockeye in Area 29, 1951.

CP/1/33 "Returns of Salmon Tagging at in 1956" (chinook tagging at Pt. Grey), 1959.

CP/1/34-37 Chinook tagging data from Ucluelet (1950), WCVI (1949), Queen Charlotte Islands (1951) and Quatsino Sd. (1951).

CP/1/38 Tag return data and reward correspondence, 1956.

CP/1/39 Chinook tag returns, 1954.

CP/1/40 Data on stomach contents of chinook ("Rough notes and first tables"), 1939.

CP/1/41 Coho sampling and catch data, Sooke traps, 1951.

CP/1/42 Juan de Fuca Str. coho tagging program: Pilot house record books from "Sea Pride" and "Pacific Sunrise" for net sampling and coho tagging, 1957-58.

CP/1/43 "Spring Salmon Stomach Contents" (summaries and final drafts), mainly Queen Charlotte Is. data from 1939-42.